DOCUMENT RESUME

ED 403 690 EC 305 129

AUTHOR Kraus, Lewis E.; And Others
TITLE Chartbook on Disability in the United States, 1996.
INSTITUTION InfoUse, Berkeley, CA.
SPONS AGENCY National Inst. on Disability and Rehabilitation Research (ED/OSERS), Washington, DC.
REPORT NO ISBN-0-16-048797-8
PUB DATE 96
CONTRACT H133D50017
NOTE 71p.; For the 1991 edition, see ED 345 405.
AVAILABLE FROM U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328; World Wide Web:
PUB TYPE Statistical Data (110)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Adults; Age; Children; Chronic Illness; Costs; *Disabilities; *Employment; *Etiology; *Incidence; *Individual Characteristics; Labor Force; *Medical Services; National Surveys; Older Adults; Vocational Rehabilitation; Youth

ABSTRACT

This chartbook presents, in graphic and textual formats, statistical data on disabilities in the U.S., gathered from available national survey and program data. Each page contains a topic question, a brief explanatory text (using data from the original source), an explanatory graphic, identification of the source of the information, and identification of the survey used to collect the data. The 38 topic questions are grouped into the following five sections (with sample topics in parentheses): (1) prevalence of disabilities (the number of people severely limited in physical functions and the number needing assistance in daily activities); (2) characteristics of people with disabilities (age, sex, race, ethnicity, income, education, and geographic location); (3) causes and medical cost of disabilities (the most common chronic health conditions which cause activity limitation and costs for medical care); (4) disability in the elderly and children/youth (incidence of disabilities in elderly persons and number of children who receive special education); and (5) work and disabilities (number of people who are work disabled, number of disabled persons in the work force, and earnings). An appendix describes the surveys on which the data are based. (Contains 37 references.) (DB)

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CHARTBOOK ON DISABILITY IN THE UNITED STATES

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National Institute on Disability and Rehabilitation Research

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Chartbook on Disability in the United States, 1996

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U.S. Department of Education
H133D50017
National Institute on Disability and Rehabilitation Research
Washington, DC

Suggested Citation

Kraus, Lewis E., Stoddard, Susan, and Gilmartin, David (1996). Chartbook on Disability in the United States, 1996. An InfoUse Report. Washington, DC: U.S. National Institute on Disability and Rehabilitation Research.

Foreword

Our statutory charge at the National Institute on Disability and Rehabilitation Research (NIDRR) is to support research in order to maximize the self-sufficiency of individuals with disabilities of all ages. NIDRR has a leadership role in improving federal disability data, and in making the data more available.

Demographic data and statistical information on disability contribute to the understanding of the scope of disability issues in the United States, developing disability policy, and planning, conducting, and evaluating services for individuals with disabilities. But the variety of statutory authorities for the collection of public data sets, and an inconsistently applied definition of disability have resulted in fragmented, incomplete, and inconsistent data sets about individuals with disabilities.

Legislators, policymakers, service providers, the press, manufacturers, retailers, and advocates require information on the incidence and prevalence of disability conditions, the distribution of disability conditions among the population, and the characteristics of individuals with disabilities.

To address the need for better use of disability statistics, NIDRR has identified the need for presentation of data in meaningful, understandable, and accessible formats usable by persons with a range of educational levels and technical skills, sensory disabilities, languages, and cognitive disabilities.

This **Chartbook on Disability in the United States, 1996**, a product of NIDRR's new Center on Improving Access to Disability Data at InfoUse, is designed to provide current data in answer to many frequently asked questions about disability. The **Chartbook** is available in print and on the World Wide Web.

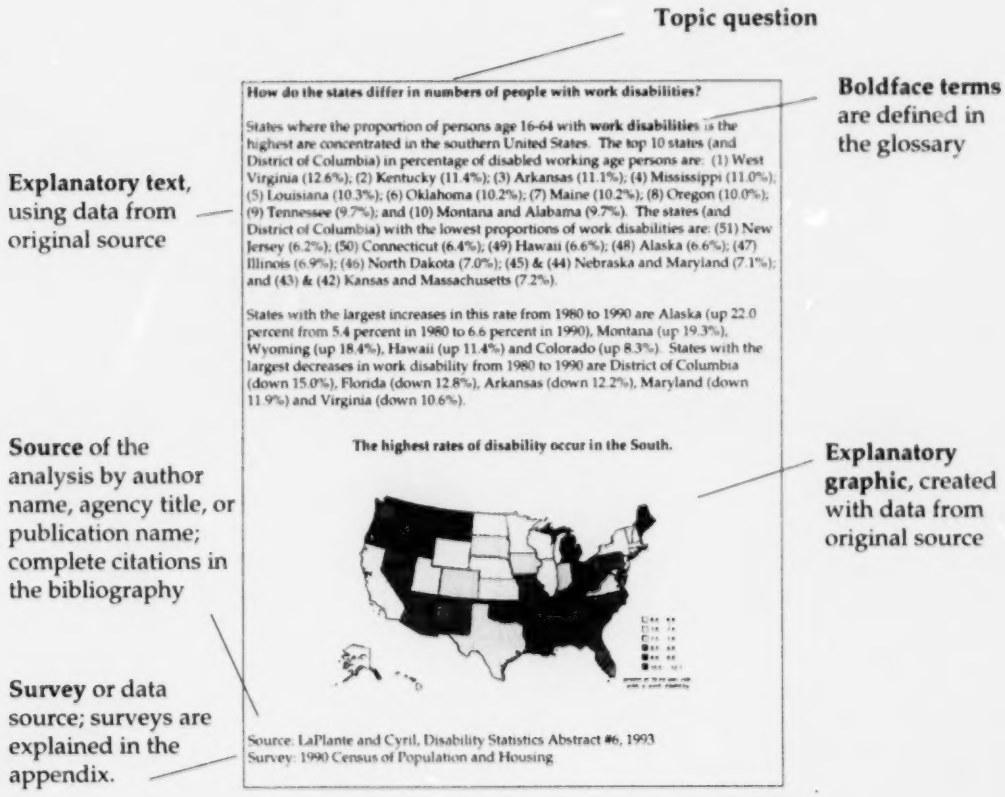
Katherine D. Seelman, Ph.D., Director
National Institute on Disability and Rehabilitation Research

For sale by the U.S. Government Printing Office
Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328
ISBN 0-16-048797-8

Preface

The **Chartbook on Disability in the United States, 1996,** is a reference on disability in the U.S. population. We have created it for use by nontechnical and technical audiences alike. The book is a resource for agencies, organizations, employers, researchers, and others needing to know about those people in the population who have a disability.

Each page contains a **topic question, explanatory text** on the topic, and an **explanatory graphic (or table)** that provides data in an easy-to-read form. The **source** of the information and the **survey** used to collect the data appear at the bottom of the page. The surveys have a technical summary located in the appendix. In the text, key terms are shown in boldface and are defined in the glossary at the end of the book.


Topic question
Boldface terms are defined in the glossary
Explanatory text, using data from original source
Source of the analysis by author name, agency title, or publication name; complete citations in the bibliography
Survey or data source; surveys are explained in the appendix.
Explanatory graphic, created with data from original source
How do the states differ in numbers of people with work disabilities?
States where the proportion of persons age 16-64 with work disabilities is the highest are concentrated in the southern United States. The top 10 states (and District of Columbia) in percentage of disabled working age persons are: (1) West Virginia (12.6%); (2) Kentucky (11.4%); (3) Arkansas (11.1%); (4) Mississippi (11.0%); (5) Louisiana (10.3%); (6) Oklahoma (10.2%); (7) Maine (10.2%); (8) Oregon (10.0%); (9) Tennessee (9.7%); and (10) Montana and Alabama (9.7%). The states (and District of Columbia) with the lowest proportions of work disabilities are: (51) New Jersey (6.2%); (50) Connecticut (6.4%); (49) Hawaii (6.6%); (48) Alaska (6.6%); (47) Illinois (6.9%); (46) North Dakota (7.0%); (45) & (44) Nebraska and Maryland (7.1%); and (43) & (42) Kansas and Massachusetts (7.2%).
States with the largest increases in this rate from 1980 to 1990 are Alaska (up 22.0 percent from 5.4 percent in 1980 to 6.6 percent in 1990), Montana (up 19.3%), Wyoming (up 18.4%), Hawaii (up 11.4%) and Colorado (up 8.3%). States with the largest decreases in work disability from 1980 to 1990 are District of Columbia (down 15.0%), Florida (down 12.8%), Arkansas (down 12.2%), Maryland (down 11.9%) and Virginia (down 10.6%).
The highest rates of disability occur in the South.
Source: LaPlante and Cyril, Disability Statistics Abstract #6, 1993
Survey: 1990 Census of Population and Housing

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Introduction

This 1996 edition of the **Chartbook** updates basic and current disability statistics. The presentation is nontechnical and meant for people who are interested in data on disability in the United States, but who are not familiar with the statistical sources. The document is intended for distribution in print and on the "Web."

This book's approach uses the most generalizable data possible from available national survey and program data. These data are considered by experts to provide the best national estimates of disability.

In the **Chartbook**, we report analyses from more than one survey, since surveys use different definitions of disability. All charts are prepared from published tables and documents. Each term which is uniquely defined by the surveys is bold-faced on the page and is defined in the Glossary. Each page notes the survey and source of analysis. A Bibliography provides references for the sources consulted. Detailed information covering technical issues of each survey is provided in the Appendix.

Section 1 provides estimates of people with disabilities in the United States. Section 2 reviews the data on characteristics (age, sex, race, ethnicity, income, education, geographic location) of people with disabilities as reported by national surveys. Causes of disabilities, and medical costs, are covered in Section 3. Section 4 examines aspects of two particularly important disability populations, the elderly and children. Finally, work disability is reviewed in Section 5.

Section 1: Prevalence of Disabilities

This first section provides numbers to answer the most basic question on disability: "How many people have disabilities?"

The best estimates come from two main national surveys using different definitions of "disability".

The Survey of Income and Program Participation (SIPP) uses a definition of disability that considers limitations in specific functional activities, activities of daily living (ADLs) and instrumental acitivities of daily living (IADLs), the use of special aids, the presence of certain conditions related to mental functioning and the ability to work. Furthermore, the SIPP includes program participation data in its estimates.

The National Health Interview Survey (NHIS) defines disability as being limited in activity caused by chronic health conditions. It also looks at limitations in terms of major activities associated with a person's age group.

Levels of severity are presented for both surveys also. In the SIPP, an *inability* to perform physical functions is the measure of severity, while in the NHIS it is the *need for assistance* in daily activities.

These surveys are better at measuring physical limitations than mental limitations. Other data sources are presented in this section for estimating the prevalence of mental retardation and mental disorders.

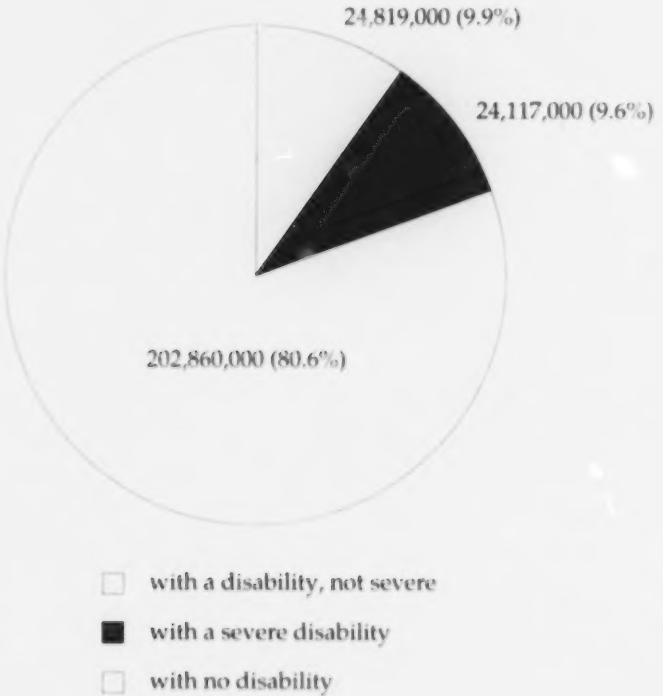
Topic Questions:

How many people have a disability?
How many people are severely limited in physical functions?
How many people need assistance in daily activities?
How many people have mental retardation?
How many people have a mental disorder?

How many people have a disability?

An estimated 19.4 percent of noninstitutionalized civilians in the United States, totaling 48.9 million people, have a **disability**. Almost half of these people (an estimated 24.1 million people) can be considered to have a **severe disability**.

Almost one in five people has a disability.



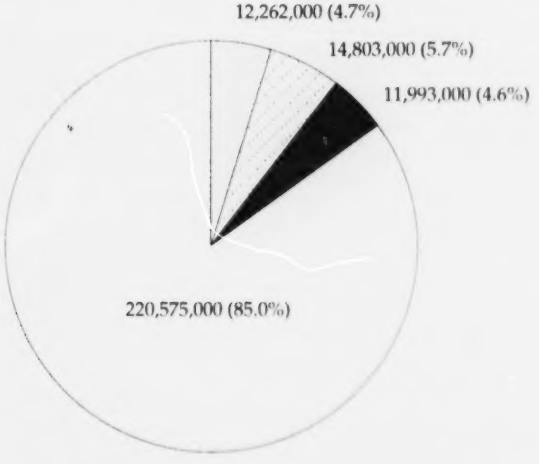
Source: McNeil, 1993
Survey: SIPP, 1992

An estimated 15.0 percent or 37.7 million noninstitutionalized U. S. residents have an **activity limitation**. Of these, 11.5 million people are unable to perform their **major activity**, 14.3 million people are limited in the kind or amount of major activity they can perform, and 11.9 million are limited in activities other than their major activity.

Activities considered to be major are:

- *children under age 5:* playing;
- *persons 5-17:* attending school;
- *persons 18-69:* working or keeping house;
- *people age 70 and over:* ability to care for oneself (bathing, eating, dressing, or getting around the home) and one's home (doing household chores, doing necessary business, shopping, or getting around for other purposes) without another person's assistance.

Almost one out of every seven people has an activity limitation.


12,262,000 (4.7%)
14,803,000 (5.7%)
11,993,000 (4.6%)
220,575,000 (85.0%)
limited but not in major activity
limited in amount or kind of major activity
unable to carry on major activity
with no activity limitation

Source: LaPlante, 1996
Survey: NHIS, 1992

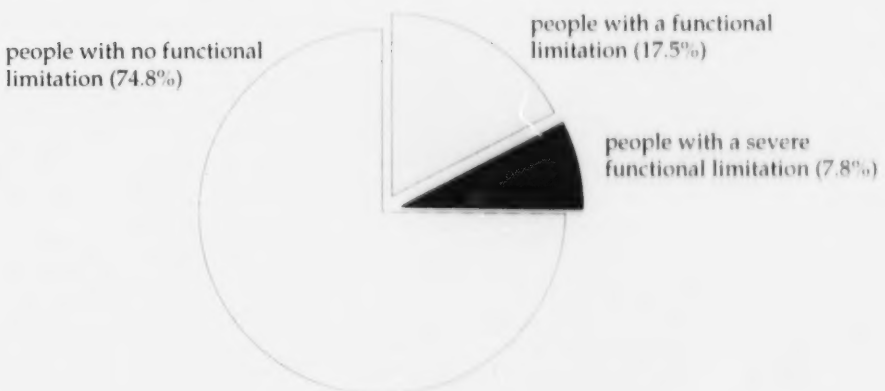
How many people are severely limited in physical functions?

Of all noninstitutionalized persons age 15 and over in the United States, 17.5 percent have a **functional limitation** (34.2 million people).

Many people have more than one limitation. For 17.5 million, it is going up a flight of stairs without resting; for 17.3 million people the limitation is in walking a quarter of a mile; for 16.2 million it is lifting or carrying something as heavy as a bag of groceries; for 10.9 million, it is hearing what is said in normal conversation; for 9.7 million, it is seeing words or letters in ordinary newsprint, even when wearing glasses or contact lenses; and for 2.3 million, it is having one's own speech understood.

People have a physically **severe functional limitation** if they are unable to perform a physical function or if they need the help of another person to perform the function. An estimated 7.8 percent of those age 15 and older (15.2 million people) are severely limited in the functions of seeing, hearing, having speech understood, lifting or carrying, walking, or using stairs.

A quarter of the population over 15 years old has some functional limitation, and nearly one-third of them has a severe limitation.

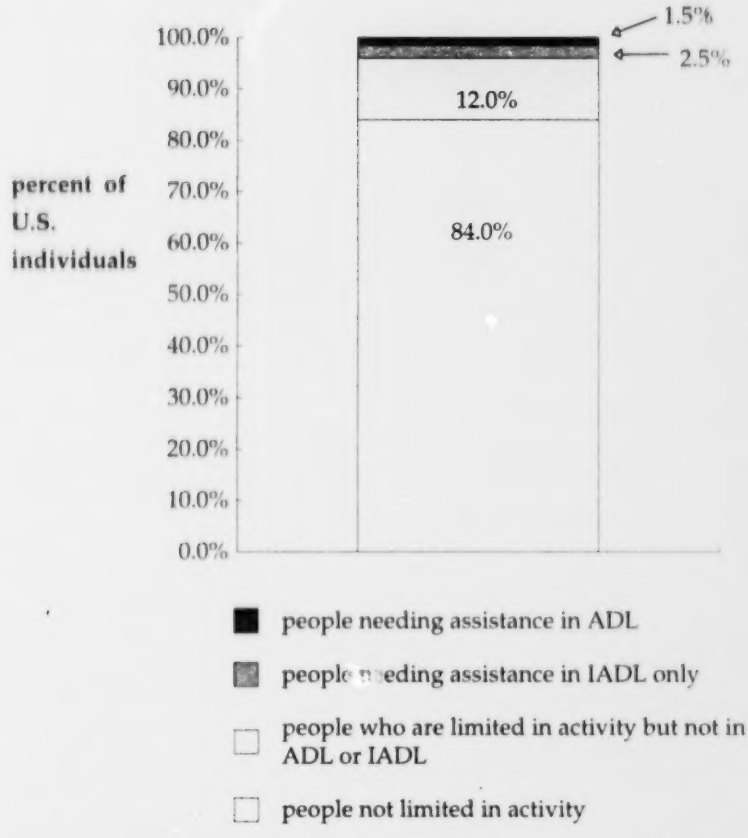

people with no functional limitation (74.8%)
people with a functional limitation (17.5%)
people with a severe functional limitation (7.8%)

Source: McNeil, 1993
Survey: SIPP, 1992

How many people need assistance in daily activities?

An estimated 4.0 percent (9.2 million) of the noninstitutionalized population age 5 and over in the United States need personal assistance with one or more activities. Over 5.8 million people need assistance in "instrumental activities of daily living" (**IADL**), while 3.4 million need assistance in "activities of daily living" (**ADL**). ADL includes bathing, dressing, eating, walking, and other personal functioning activities. IADL covers preparing meals, shopping, using the phone, doing laundry, and other measures of living independently. If someone has a need for assistance in ADL, it is assumed that they will have a need for assistance in IADL also.

One in 25 people age 5 and over needs assistance in daily activities.



Source: LaPlante, 1996
Survey: NHIS, 1992

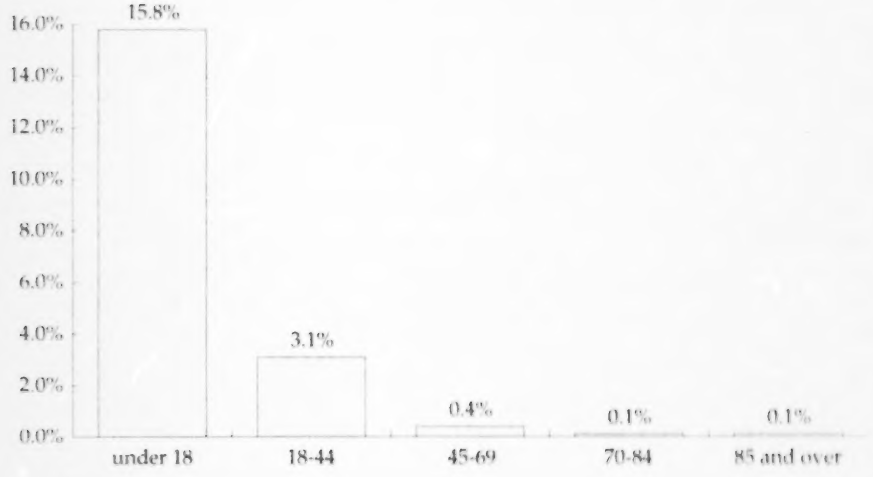
How many people have mental retardation?

Because it is difficult to measure in the population, there is only general agreement on how many people have mental retardation. While estimates of the percent in the U.S. population range from .67 percent to 3 percent, the most accepted estimates find approximately 1 percent of the noninstitutionalized population has mental retardation. This translates to about 2.5 million noninstitutionalized people having mental retardation. Estimates vary by age and definition used.

Additionally, in 1995, there were an estimated 346,659 people with mental retardation in residential settings and institutions: 33,943 are in nursing homes; 62,028 are in state institutions; 37,311 reside in private institutions with 16 or more residents; and 213,377 live in other community facilities. Another estimated 1,400 persons with mental retardation are in the nonmental retardation/ developmental disabilities units of psychiatric hospitals.

In 1995, there were an estimated 1.3 million people of all ages reporting mental retardation as a cause of activity limitation (NHIS). People, age 15 and over, reporting mental retardation as a cause of disability in the SIPP in 1992 totaled 501,000.

The number of people with mental retardation causing an activity limitation goes down with age.



Source: LaPlante 1995; McNeil 1993; Prouty and Lakin, 1996
Survey: NHIS, 1992; SIPP, 1992

How many people have a mental disorder?

The Epidemiologic Catchment Area Survey (ECA) estimated 28.1 percent, or 51.3 million people in the community and in institutional settings in the United States had a **mental disorder** in any given 1-year period. About 2.8 percent of the adult population (or 5 million people) experience **severe mental disorders** in a 1-year period.

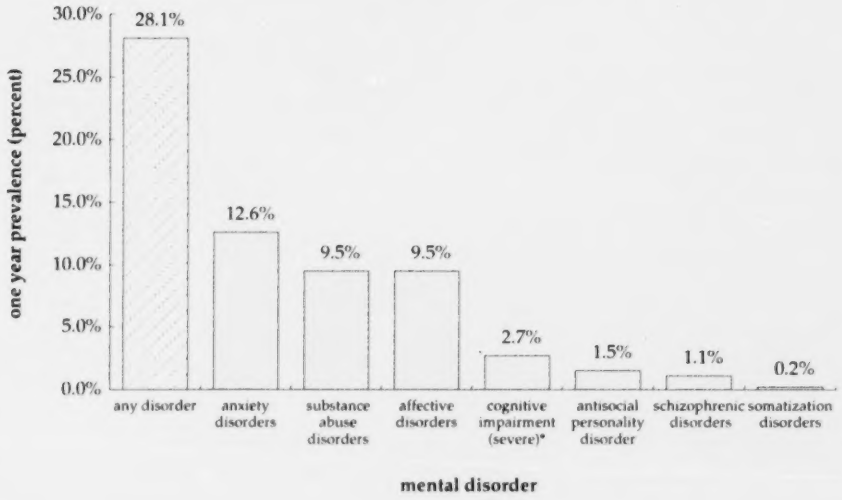
The 1989 NHIS estimates that 1.8 percent (3.3 million people) have a serious mental illness. It also found that 78.8 percent (2.6 million) are currently limited by this serious mental illness.

Technical Notes:

1) The ECA used diagnoses based on the NIMH Diagnostics Interview Schedule, which is a structured psychiatric diagnostic schedule suitable for administration by lay interviewers in community populations. The NHIS used self-reports of illness.

2) The ECA was conducted in five sites: New Haven, CT; Durham, NC; Baltimore, MD; St. Louis, MO; and Los Angeles, CA.

More than one in four people has a mental disorder in any year.



* This is a measure of current cognitive status based on the Mini-Mental State Examintation.

Source: Bourdon, et al, 1994; National Advisory Mental Health Council, 1993; Barker, et al, 1992
Survey: ECA, 1980-1985; NHIS 1989

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Section 2: Characteristics of People With Disabilities

This section provides data collected in national surveys on the demographics of people with disabilities. Subjects covered in this section include age, sex, ethnicity, income, educational level, geographic location, and residence of people with disabilities (including those in institutions). As with Section 1, the information is based predominantly on the NHIS and the SIPP, which have the broadest definitions of disabilities (limitation of activity and limitation of function). There are also pages on the demographics of severely disabled persons, as measured in these surveys (including those who need assistance in activities of daily living).

Topic Questions:

Where do people with activity limitations live?
How many people use assistive technology devices?
How many people use home accessibility features?
How do activity limitations change with age?
How do the levels of disabilities change with age?
How does activity limitation differ for males and females?
How do disability rates differ for males and females?
How does disability differ for races and ethnicities?
How does the need for assistance differ by race or ethnicity?
How do activity limitations differ by family income?
How do functional limitations differ by income?
How do activity limitations differ by educational level?
How does the need for assistance differ with educational level?

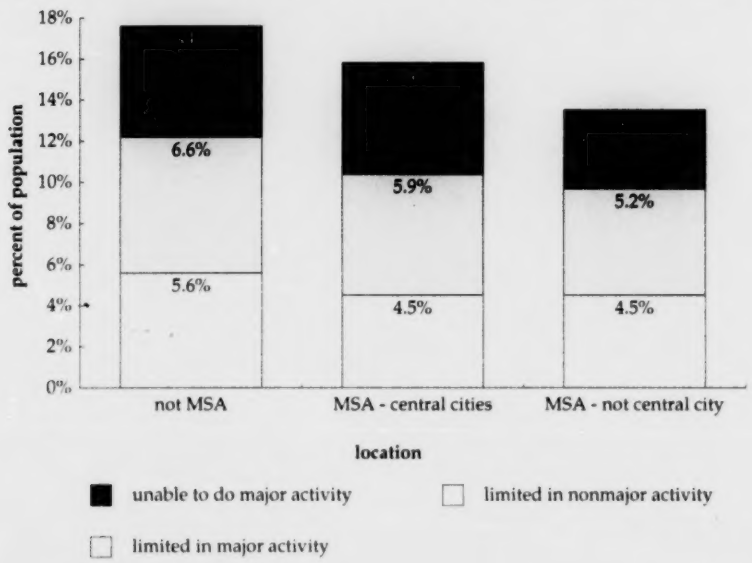
Where do people with activity limitations live?

People with **activity limitations** live in all parts of the United States, but slightly higher levels of activity limitations in the population are found in the South (16.1%) than in the West (14.7%), Midwest (14.6%), and Northeast (14.3%).

People living in rural areas (not **MSA**s) have the highest levels of activity limitation (17.6%). Central city residents report 15.8 percent have limitations and those living in **MSA**s outside of the central cities report the lowest activity limitation levels (13.4%).

Technical Note:	Geographic regions include the following states:
Midwest -	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
Northeast -	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.
South -	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
West -	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

People living in rural areas have the highest activity limitations.

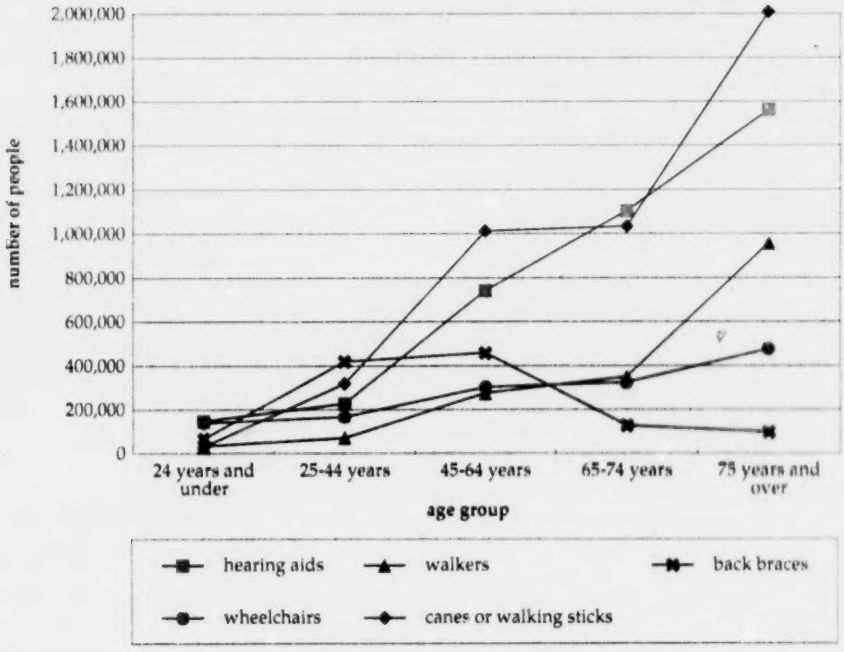


Source: NCHS, 1995
Survey: NHIS, 1994

How many people use assistive technology devices?

There are an estimated 13.1 million persons using **assistive technology devices** in the United States for anatomical, mobility, hearing, vision, speech, or other purposes. The most common devices are canes or walking sticks (4.4 million), hearing aids (3.8 million), walkers (1.7 million), wheelchairs (1.4 million), and back braces (1.2 million). Just as disability increases with age, so do the number of assistive technology devices, rising from 1.0 million for those 24 years and under to 4.1 million for people 75 and over.

Use of canes, hearing aids, and walkers rises sharply with age.

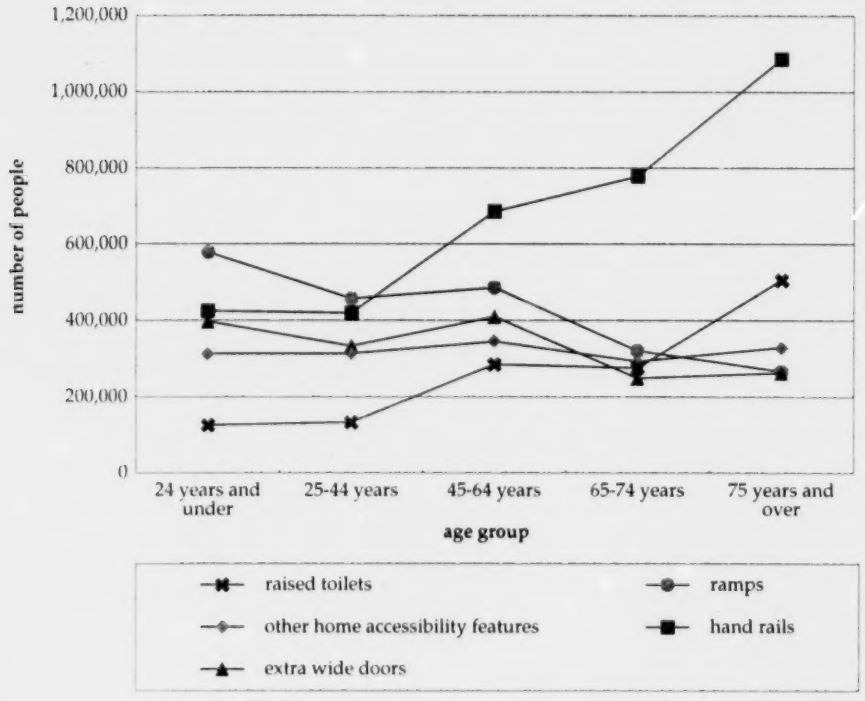


Source: LaPlante, et al., 1992
Survey: NHIS, 1990

How many people use home accessibility features?

There are over 7.1 million persons using **home accessibility features** in the United States. The most common features are hand rails (3.4 million people), ramps (2.1 million), extra wide doors (1.7 million), other home accessibility features (1.6 million), and raised toilets (1.3 million). (Other features include adapted door locks, lowered counters, and slip-resistant floors.) Unlike assistive devices, most home accessibility features do not show much increase with older populations, fluctuating between 1.4 million for those 24 and under to 1.7 million for those 75 and over.

Hand rails, the most common home accessibility feature, is one of the only features that are used increasingly with age.



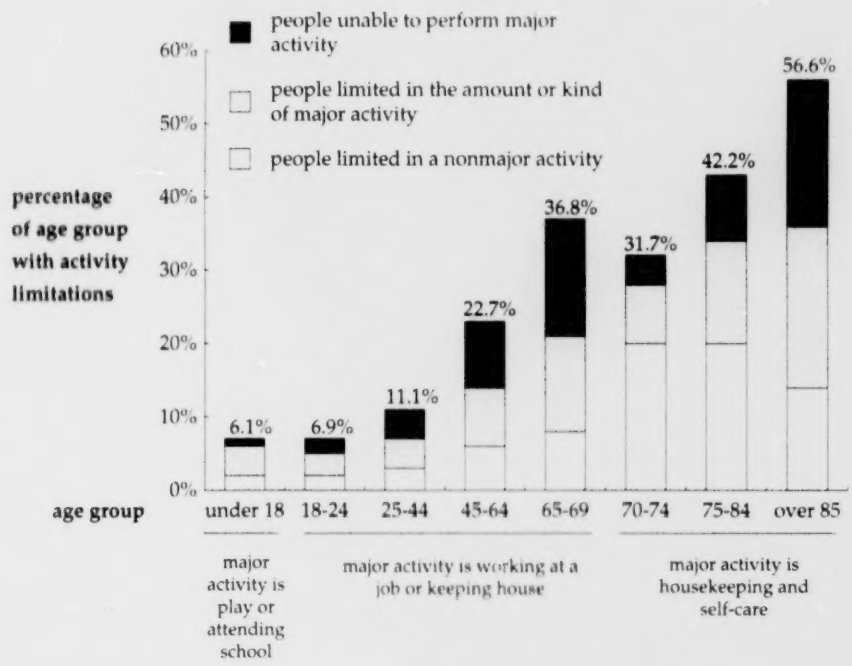
Source: LaPlante, et al., 1992
Survey: NHIS, 1990

How do activity limitations change with age?

Activity limitation increases with age. For the 66.5 million noninstitutionalized persons in the United States under age 18, where the **major activity** is playing or attending school, 6.1 percent have activity limitations: 0.6 percent are unable to play or attend school, 3.9 percent are limited in the amount or kind of play or school they can participate in, and 1.6 percent are limited in a nonmajor activity. In contrast, for the 20.8 million people over age 70, where the major activity is housekeeping and self-care, a total of 39.7 percent are limited: 8.3 percent are unable to keep house or do self-care, 12.3 percent are limited in the amount or kind of housekeeping or self-care they can do, and 19.1 percent are limited in a non-major activity.

Technical Note: The definition of major activity changes after age 69, to self-care and housekeeping from work, and percentage rates for age groups above 69 years drop initially, but then increase.

Activity limitation increases with age.

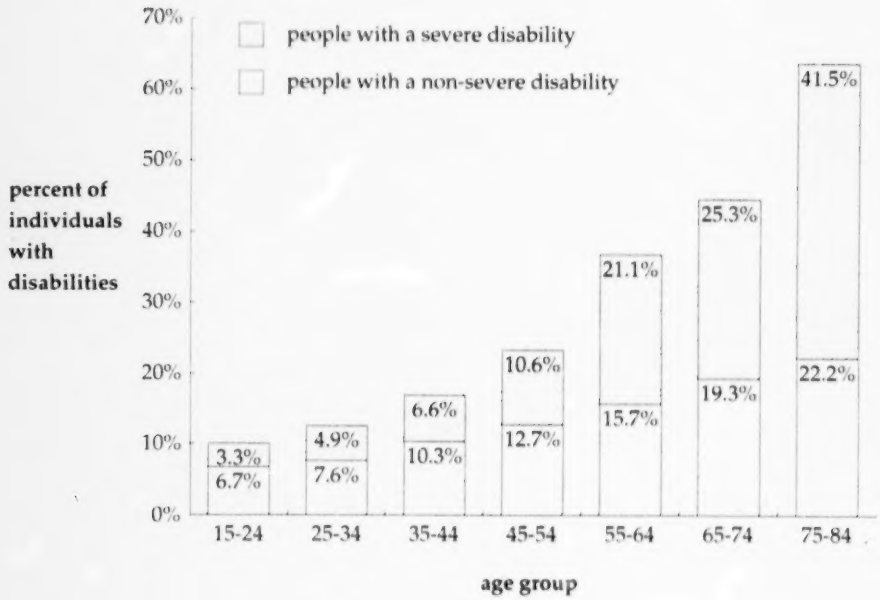


Source: LaPlante, 1996
Survey: NHIS, 1992

How do the levels of disabilities change with age?

The proportions of people with **disabilities** and of people with **severe disabilities** both increase with age. Of the 34.8 million 15 to 24 year olds, there are 3.5 million (10.0%) with a disability and 1.2 million (3.3%) are classified as severely disabled. Among the 9.9 million persons 75 to 84 years old, 6.3 million (63.7%) have disabilities; of those, 4.1 million or 41.5 percent report having severe disabilities.

Disability increases in severity with age.



Source: McNeil, 1993
Survey: SIPP, 1992

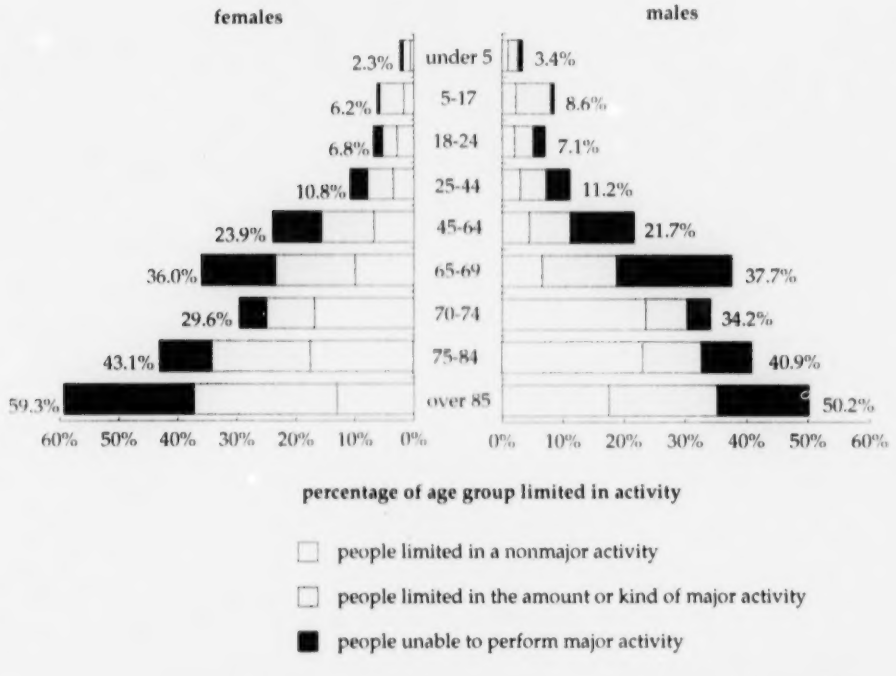
How does activity limitation differ for males and females?

Overall, women have more **activity limitations** than men. Of the 129.3 million noninstitutionalized females in the United States, 15.4 percent are limited in activity compared to 14.6 percent of the 122.2 million males. Women are less likely to be unable to perform their **major activity** than men (4.3% compared to 4.9%) but are more likely to be limited in the amount or kind of major activity they can perform (6.1% to 5.3%) or to be limited in activities other than their major activity (5.0% to 4.4%).

After adjusting for age (statistically accounting for age differences in men and women), however, women are no more likely than men to be limited in activity.

Technical Note: Since keeping house and working are the major activities for ages 18-69, people whose major activity is keeping house and are not limited in this activity are classified as being limited in a nonmajor activity if they report a work limitation.

In youth, males report more limitations, while in old age, females report more limitations.

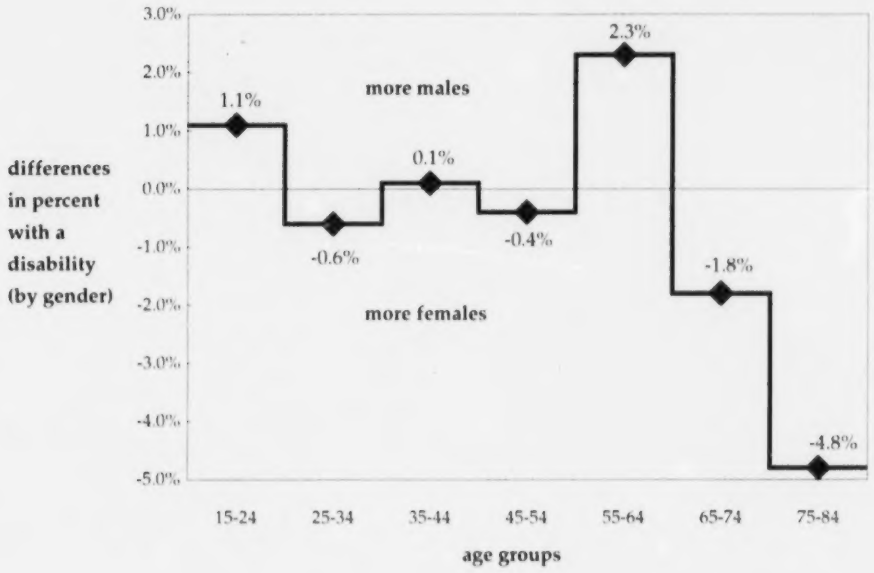


Source: LaPlante, 1996
Survey: NHIS, 1992

How do disability rates differ for males and females?

Of the noninstitutionalized population over the age of 15 in the United States, 25.0 million females (24.6%) report disabilities compared to 21.0 million males (22.4%). Furthermore, 14.0 million females report severe disabilities (13.8%), while only 9.6 million males report severe disabilities (10.2%). Disability rates for both sexes increase as age increases. For some age groups, males report higher percentages of disabilities than women, and, in others, women have higher percentages than men.

Disability rates are higher for females at older ages.



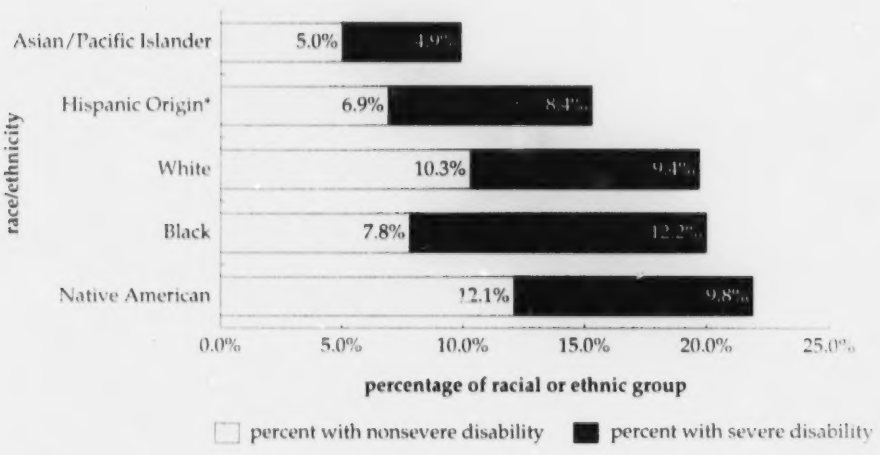
Technical Note: The midpoints of the groups have been used to create a continuous line.

Source: McNeil, 1993
Survey: SIPP, 1992

How does disability differ for races and ethnicities?

The rate of **disability** reported by individuals in different ethnic groups varies from a low of 9.9 percent for Asian and Pacific Islanders to a high of 21.9 percent for Native Americans. Asian and Pacific Islanders have the lowest percentages of severe disability (4.9%). Blacks have the highest proportion of those with a severe disability (12.2%). Approximately 41 million whites report a disability, with 19.7 million of those being severely disabled. An estimated 6.3 million blacks report a disability, with 3.8 million of those having a severe disability. An estimated 361,000 Amercian Indians, Eskimos, or Aleuts report a disability, with 162,000 being severe. Asian Americans report 777,000 people with a disability and 384,000 with a severe disability. Of those with a Hispanic origin (who can be of any race), 3.4 million reported a disability and 1.8 million reported a severe disability.

Disability rates range from about 1 in 10 for Asians/Pacific Islanders to 1 in 4 for Native Americans.



* Hispanic origin can be of any race

Source: McNeil, 1993
Survey: SIPP, 1992

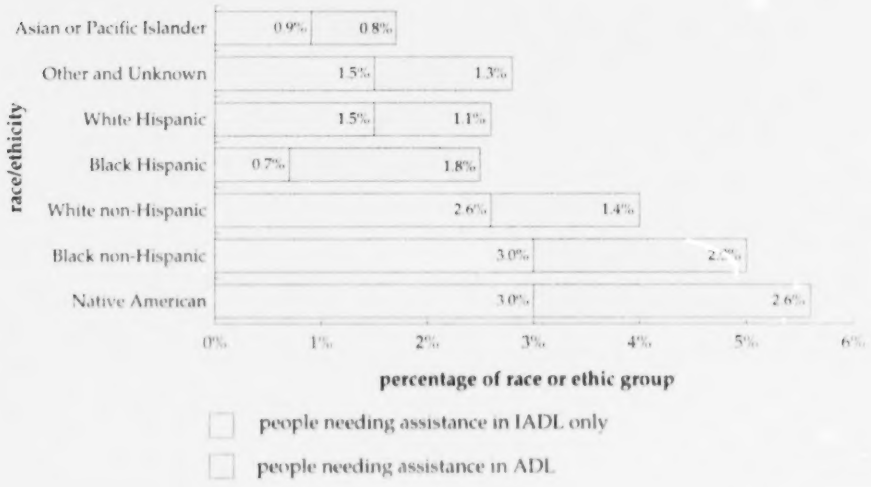
How does need for assistance differ by race or ethnicity?

Native Americans report the highest proportion of their population age 5 and over needing assistance in activities of daily living (**ADL**), 2.6 percent. Native Americans and black non-Hispanics report 3.0 percent of their population needing assistance in instrumental activities of daily living (**IADL**), the highest of all races/ethnicities.

Over 4.5 million white non-Hispanic people are estimated to need assistance in IADL only and another 2.5 million in ADL. Of black non-Hispanics, 819,000 need assistance in IADL only and another 553,000 in ADL.

Technical Note: Persons of Hispanic origin may be of any race.

Native Americans and Black non-Hispanics have the highest rates of need for assistance.



Technical Note: The standard error for the values listed for Black Hispanics is too great to be a statistically reliable estimate.

Source: LaPlante, 1992
Survey: SIPP, 1992

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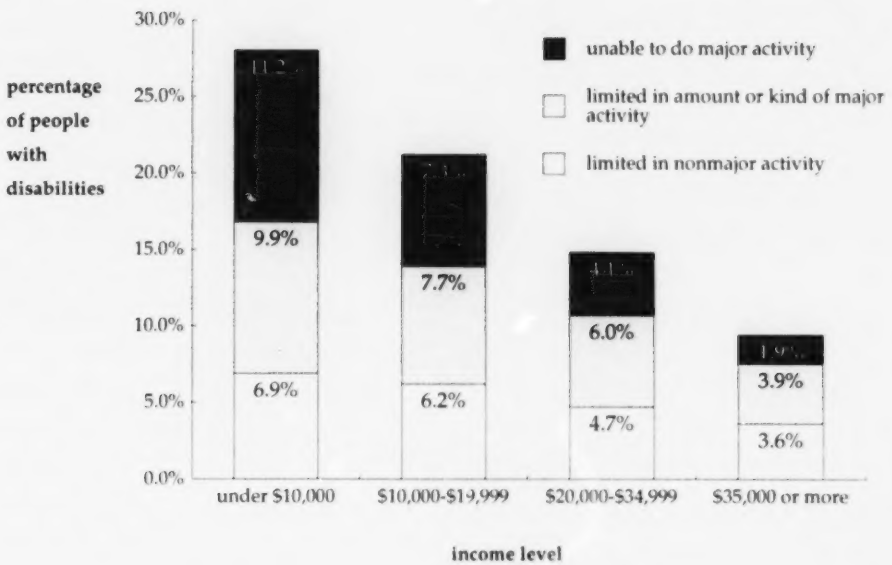
How do activity limitations differ by family income?

There is a clear link between **activity limitation** and **family income**. Income loss often occurs as a result of disability. An estimated 6.5 million of the 23.3 million people who are members of low-income families (less than $10,000 income annually) have activity limitations (28.0%). An estimated 1.6 million of these low-income family members are limited in nonmajor activity (6.9 percent of low-income family members), another 2.3 million are limited in amount or kind of **major activity** (9.9%), and 2.6 million are unable to carry out their major activity (11.2%). On the contrary, only 9.4 million people (9.4%) of members of families with an annual income of $35,000 or more have activity limitations; 3.6 million (3.6%) are limited in a nonmajor activity, 3.9 million (3.9%) are limited in amount or kind of major activity, and only 1.9 million (1.9%) are unable to carry out their major activity.

Technical Note: Incomes are in 1994 dollars.

Activity limitations decrease steadily with increasing family incomes.



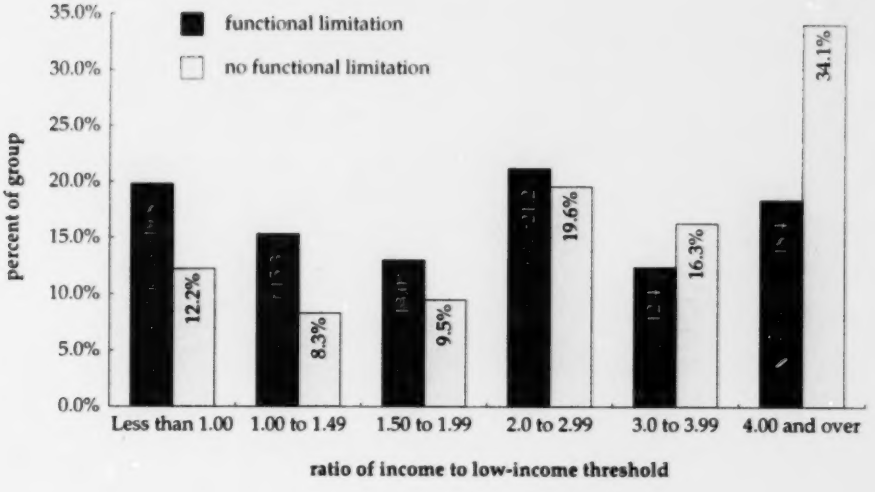
Source: NCHS, 1995
Survey: NHIS, 1994

How do functional limitations differ by income?

People over age 15 with **functional limitations** tend to be members of lower income households. Almost one out of five persons (19.8%) over age 15 with functional limitations has an income below the poverty threshold (translating to over 6.8 million people), while only 12.2 percent of people with no functional limitations receive less than the poverty threshold amount. On the other hand, 34.1 percent of people with no functional limitations have monthly household incomes of more than four times the poverty threshold, but only 18.4 percent of people with limitations receive that amount. Note, however, that older people, who have higher rates of limitations, have lower incomes, explaining some of the relationship of income and limitations.

Technical Note: Income information was collected in the last three months of 1991 and the first month of 1992. The poverty threshold for a family of four in 1991, which is when most of this data was collected, was $13,924. In 1992, the poverty threshold for a family of four was $14,335.

People with lower incomes report higher levels of functional limitations.



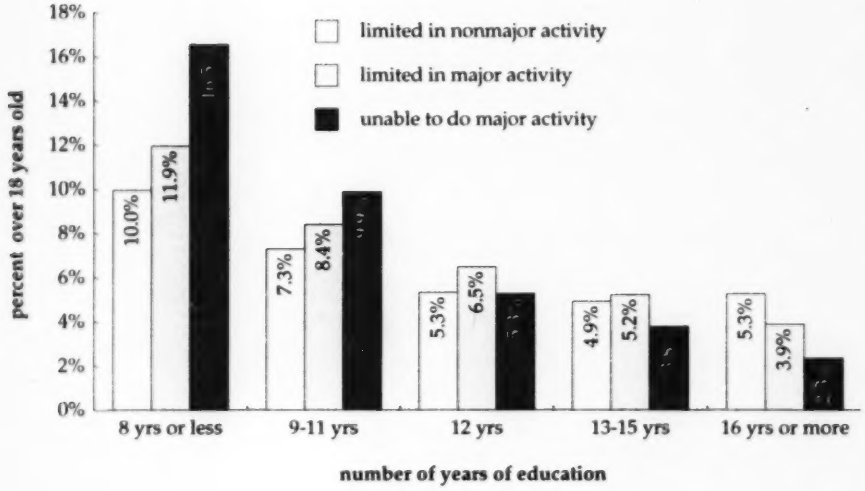
Source: McNeil, 1993
Survey: SIPP, 1992

How do activity limitations differ by educational level?

People age 18 and over who have completed 8 years or fewer of school are more likely to have **activity limitations** than are people with more education. In fact, the higher the educational level, the less likely one is to be limited in activity; 61.6 percent of the 16.4 million people with 8 years or less education are not limited in activity, compared to 88.5 percent of the 32.8 million people with 16 years or more education. The pattern of increasing limitations for people with lower levels of education holds for persons limited in nonmajor activity (5.3 percent to 10.0%), those limited in kind or amount of **major activity** (3.9 percent to 11.9%), and those unable to perform major activity (2.3 percent to 16.5%).

Technical Note: It should be noted that higher levels of education may place someone in a desk job that is less likely to pose an on-the-job hazard. It should also be noted that older people, who have higher rates of limitations, also have lower amounts of education, and were more likely to have physically dangerous occupations than today's adult.

People with lower education levels report higher levels of activity limitations.

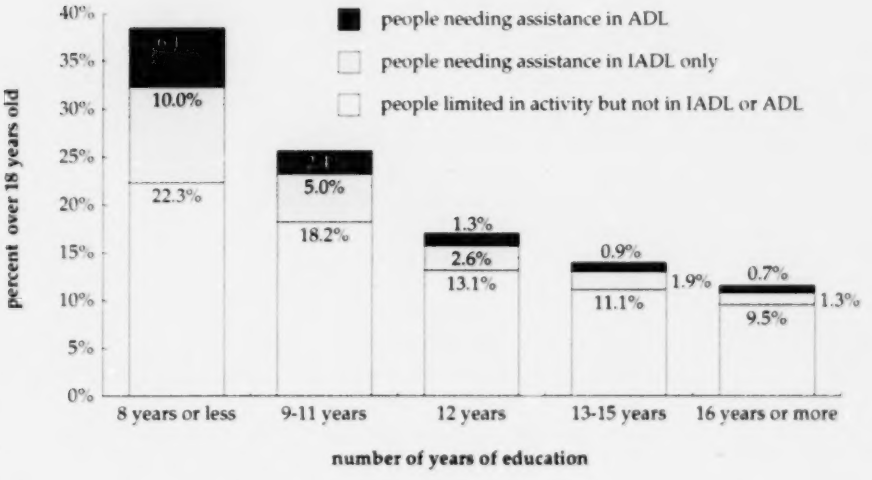


Source: LaPlante, 1996
Survey: NHIS, 1992

How does the need for assistance differ with education level?

The percent of those needing assistance in **IADL** only (instrumental activities of daily living) drops off quickly as level of education rises -- 10.0 percent (1.6 million) for those with 8 years or less education compared to 1.3 percent (481,000) for those with 16 or more years of education. The same trend occurs for those needing assistance in **ADL** (activities of daily living), dropping from 6.1 percent (1,002,000) to 0.7 percent (265,000), respectively. It should be recognized that there is a lower probability of advanced education in older citizens at this time. Therefore, some of the difference can be attributed to the influence of age.

More than one in six people with 8 years of education or less have a need for assistance.



Source: LaPlante, 1996
Survey: NHIS, 1992

Section 3: Causes and Medical Costs of Disabilities

Chronic health conditions are the most common reason people have a disability. This section presents the data on the most prevalent chronic health conditions, how much activity limitation is caused by those conditions, and which conditions include the highest percentage of persons with limitations. In addition, there is information on the costs and sources of payment for medical care.

Topic Questions:

Which chronic health conditions cause activity limitations most often?
In a year, which conditions causing activity limitations are reported most often?
How much do people with disabilities spend for medical care?

Which chronic health conditions cause activity limitations most often?

Chronic health conditions can cause **activity limitations**. Chronic health conditions cause activity limitations an estimated 61,047,000 times in the U.S. population. The five conditions causing the most limitations are: heart disease (7,932,000); back problems (7,672,000); arthritis (5,721,000); asthma (2,592,000); and diabetes (2,569,000).

The conditions causing people to have activity limitations in **major activity** most often are: mental retardation (87.5 percent of people with the condition have a limitation); multiple sclerosis (69.4%); malignant neoplasm of the stomach, intestine, colon, and rectum (62.1%); complete and partial paralysis of extremities (60.7%); malignant neoplasm of the lung, bronchus, and other respiratory sites (60.6%); and blindness in both eyes (60.3%).

The top ten chronic conditions that cause activity limitations...

Chronic condition	*Number of conditions causing limitations*
Heart disease	7,932,000
Back problems	7,672,000
Arthritis	5,721,000
Asthma	2,592,000
Diabetes	2,569,000
Mental disorders	2,035,000
Disorders of the eye	1,577,000
Learning disabilities and Mental retardation	1,575,000
Cancer	1,342,000
Visual impairments	1,294,000

and the top ten most frequently limiting conditions.

Chronic condition	*Percent of conditions causing major limitations*
Mental retardation	87.5%
Multiple sclerosis	69.4%
Malignant neoplasm of stomach, intestine, colon, and rectum	62.1%
Paralysis of extremities, complete or partial	60.7%
Malignant neoplasm of lung, bronchus, and other respiratory sites	60.6%
Blindness, both eyes	60.3%
Other deformity or orthopedic impairment	54.4%
Paralysis of other sites, complete or partial	48.0%
Other diseases of the heart, excluding hypertension	47.8%
Epilepsy	44.4%

Source: LaPlante, 1996; NCHS, 1996
Survey: NHIS 1990-1992

In a year, which conditions causing activity limitations are reported most often?

The highest percents of **chronic health conditions** that cause **activity limitations** and onset in the year 1991 were: malignant neoplasms of other and ill-defined sites within the digestive organs and peritoneum (40.7 percent of all reports of the condition); visual disturbances (40.7%); malignant neoplasms of respiratory and intrathoracic organs (40.5%); malignant neoplasms of male genital organs (38.9%); malignant neoplasms of other and unspecified sites (37.7%); and malignant neoplasms of other and unspecified female genital organs (32.9%).

Technical Note: Groupings of the conditions can affect the percents and rates. For example, malignant neoplasms could be grouped together as cancer, giving a different rate. Listed conditions are significantly different from all conditions at $p<.05$ confidence at a minimum.

Of the top 15 conditions causing an activity limitation that onset in the past year, many were cancers.

Chronic condition	*Percent of conditions causing limitations with onset in past year*
Malignant neoplasm of other and ill-defined sites within the digestive organs and peritoneum	40.7%
Visual disturbances	40.7%
Malignant neoplasm of respiratory and intrathoracic organs	40.5%
Malignant neoplasm of male genital organs	38.9%
Malignant neoplasm of other and unspecified sites	37.7%
Malignant neoplasm of other and unspecified female genital organs	32.9%
Chronic injuries or late effects of injuries	29.2%
Other digestive diseases	27.1%
Heart failure	23.9%
Dyspnea and respiratory abnormalities	23.6%
Peripheral enteropathies and other allied disorders	22.0%
Malignant neoplasm of female breast	21.6%
Orthopedic impairment of shoulder and /or upper extremity	18.5%
Other chronic ischemic heart disease	15.5%
Orthopedic impairment of lower extremity	14.5%

Source: LaPlante, 1996
Survey: NHIS 1992

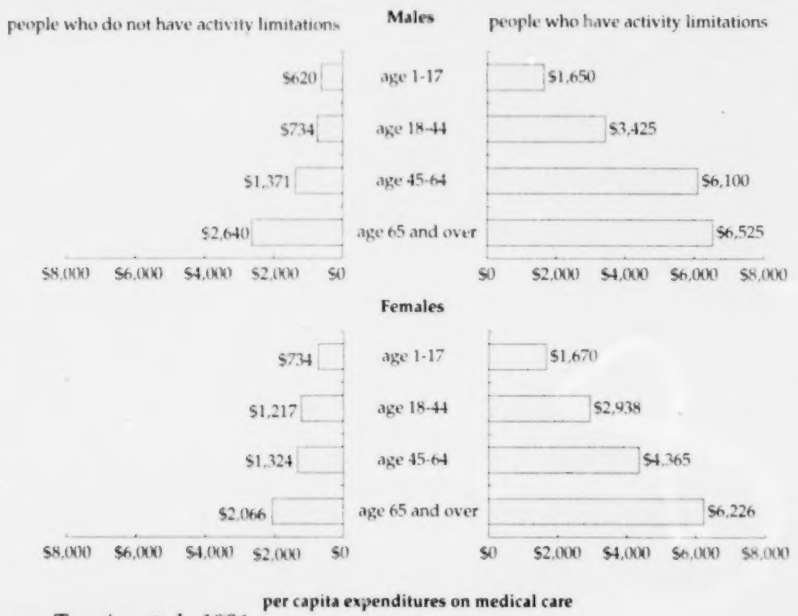
How much do people with disabilities spend for medical care?

In 1987, people with an activity limitation spent an estimated $156,949,000 on **medical expenditures**. By 1993, it was an estimated $282,832,000. For a group which comprised 17 percent of the total population, people with a limitation accounted for 47 percent of medical expenditures nationally.

In 1987, people with an activity limitation due to a chronic condition spent over four times more on medical care than nondisabled individuals (an estimated $4,692 per person per year for those with limitations compared to $1,086 for those with no limitations). This was true for males, females, and all age groups.

People with disabilities pay via public coverage most (Medicare -- 30 percent and Medicaid -- 10%). In comparison, people with no disabilities turn to private coverage most -- 46 percent. Half of those with a disability are covered by private insurance from ages 1-17. Private insurance coverage drops to 38 percent between age 18 and 64 and only 14 percent over age 65. In comparison, 48 percent of those between ages 1 and 17 with no disabilities are covered by private insurance, 53 percent between ages 18 and 64, and 18 percent over 65.

Those with activity limitations report more medical expenditures.



Source: Trupin, et al., 1996
Survey: NHIS, 1987 and 1993

Section 4: Disability, the Elderly, Children and Youth

Although people with disabilities exist throughout the population, two groups are especially important to look at: the elderly and children and youth. Surveys have been designed specifically for collecting data about these two subpopulations. This section reports the specifics of disability as related to elderly persons, and as related to children and youth, especially how the groups differ from the rest of the population. Again, disability is represented by limitations in activity, limitations in physical functions, and needing assistance in daily activities. In addition, there are data on numbers of special education students and types of special education environments.

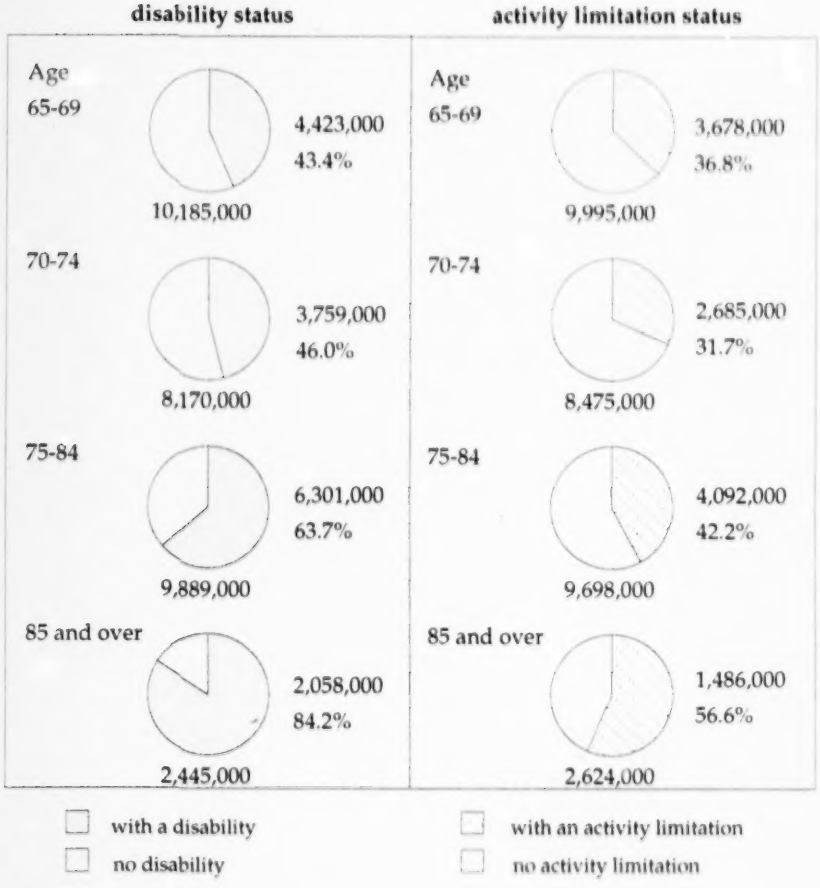
Topics covered:

How many elderly persons have disabilities?
How many older people need assistance with activities of daily living?
How many children have limitations in activity?
What are the differences in race and income for children with limitations?
How many children and youth receive special education?
Where do children and youth receive special education?

How many elderly persons have disabilities?

Elderly persons are particularly affected by **activity limitations**. In contrast to people between 18 and 45, where fewer than 8.6 percent report activity limitations, 38.8 percent of people age 65 and older report being limited in their activity. Similarly, those aged 65 and older report higher rates of disability in the SIPP (53.9%) than people between 18 and 45 (13.6%).

Over half of those over age 65 have a disability and almost 40 percent report having an activity limitation.

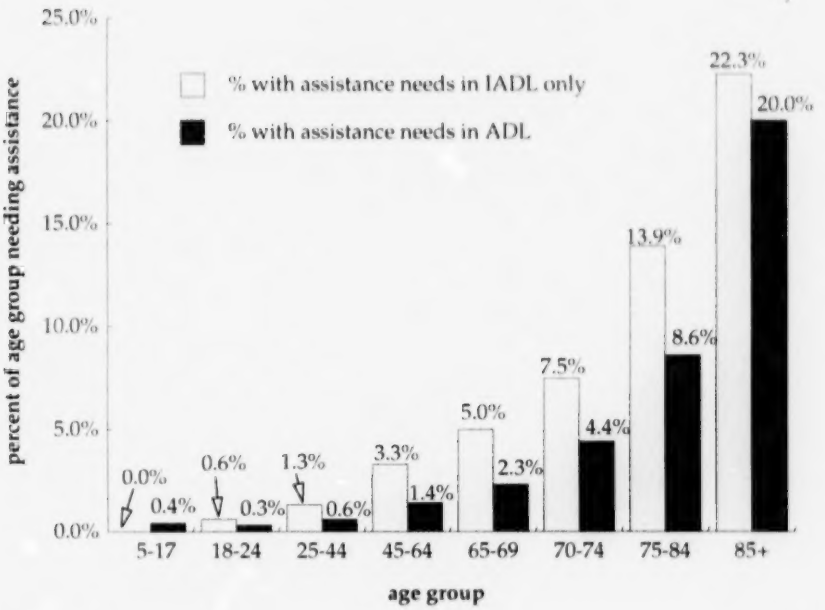


Source: McNeil, 1993, LaPlante, 1996
Survey: SIPP, 1992; NHIS, 1992

How many older people need assistance with activities of daily living?

Over 5 million people age 65 and older need assistance in **IADL** (instrumental activities of daily living) or **ADL** (activities of daily living). The percentage of people in any given age range needing help with ADL doesn't rise above 10 percent until age 85, when it jumps to 20.0 percent. Similarly, the percentage of those needing assistance in IADL only doesn't rise above 10 percent until age 75 (13.9 percent for 75-84; 22.3 percent for 85 and over). The numbers of people who need assistance, however, is not insignificant in younger age groups. Over 1.0 million 25-44 year olds need assistance in IADL only and another 477,000 need assistance in ADL. Almost 1.6 million 45-64 year olds need assistance in IADL only, and 684,000 more in ADL.

The need for assistance increases later in life.



Source: LaPlante, 1996
Survey: NHIS, 1992

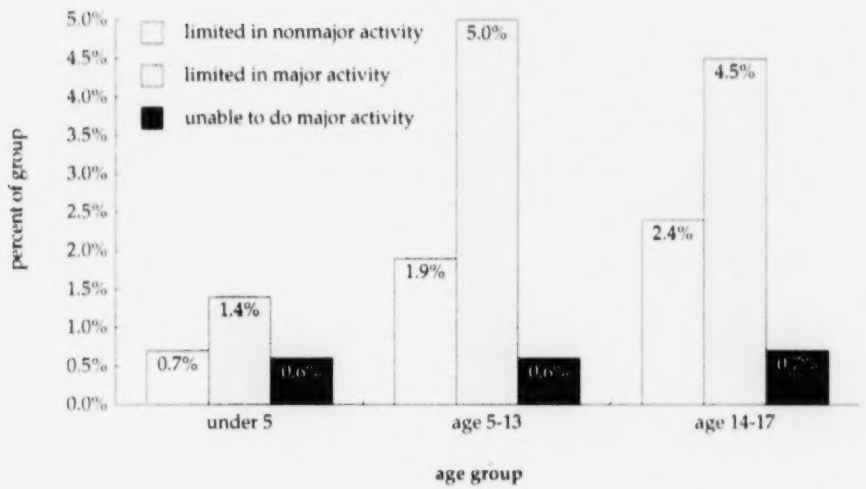
How many children have limitations in activity?

Over 4.7 million children under age 18 have **activity limitations** (6.7 percent of all children). An estimated 1.8 percent of children (1.3 million children) are limited in an activity other than playing or attending school, 4.2 percent (2.9 million) are limited in kind or amount of play or school they can attend, and 0.7 percent (519,000) are unable to play or attend school at all.

An estimated 7.9 percent of boys under age 18 have an activity limitation (2.8 million) compared to 5.6 percent of girls of the same age (1.9 million). Age breakdowns can be seen in the chart below.

Technical Note: Major activity for children changes from playing for those under age 5 to attending school from age 5-17.

The percent of children limited in their major activity ranges from 5 percent for those ages 5-13 to 1.4 percent for children under age 5.



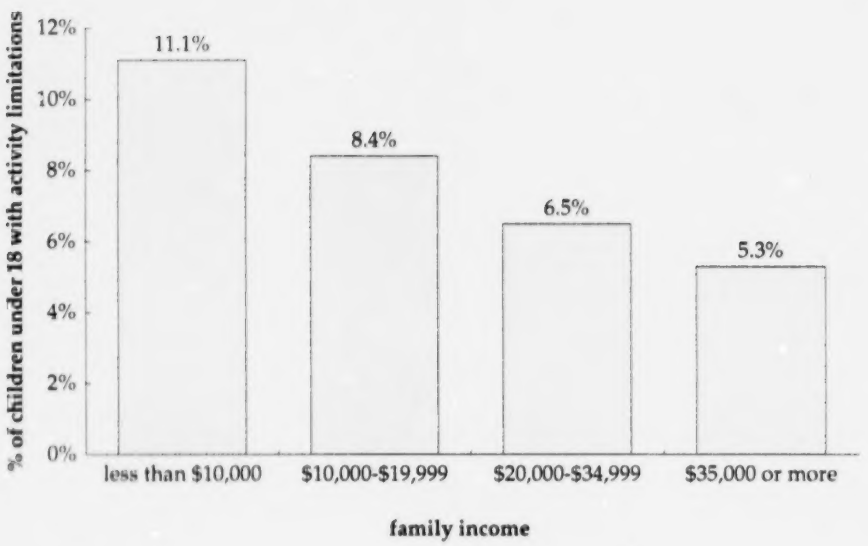
Source: NCHS, 1995; LaPlante , Disability Abstract #15, 1995
Survey: NHIS 1994, 1992

What are the differences in race and income for children with limitations?

An estimated 8.8 percent (996,000) black children under age 18 have activity limitations compared to 6.4 percent of white children of the same age (3.6 million).

For children in families with incomes under $10,000 annually, 11.1 percent (779,000) have activity limitations. For those children in families receiving $10,000 to $19,999 annually, 8.4 percent (850,000) have limitations. An estimated 6.5 percent (936,000) children in families with incomes of between $20,000 and $34,999 have limitations. Finally, children in families with incomes of $35,000 or more, 5.3 percent (1.5 million) have limitations.

As family income rises, the percentage of those under age 18 with activity limitations goes down.



Source: NCHS, 1995
Survey: NHIS, 1994

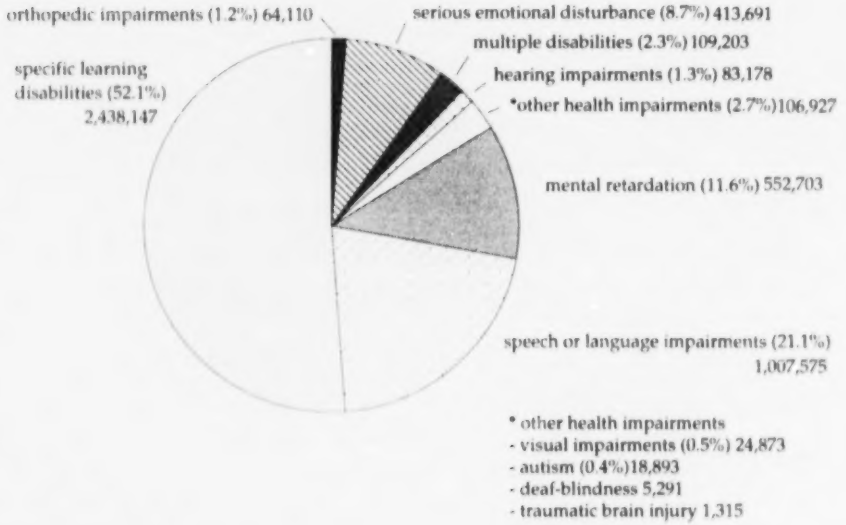
How many children and youth receive special education?

In the United States, District of Columbia and Puerto Rico, 5.4 million children and youth age 3 to 21 with disabling conditions are served under the Elementary and Secondary Education Act (**ESEA**), Chapter 1- State Operated Programs (**SOP**) and Individuals with Disabilities Education Act (**IDEA**), Part B. These two federal programs provide **special education** funding for disabled children and youth from birth through age 21.

Of children ages 6-21, 51.1 percent have specific learning disabilities, 21.1 percent have speech or language impairments, 11.6 percent have mental retardation, and 8.7 percent have serious emotional disturbance.

These rates vary by age. The largest groups for 6 to 11 year olds are learning disability (41.4%) and speech impairment (36.3%). Learning disability is by far the largest category for the 12 to 17 year olds (62.6%). The largest groups for ages 18 to 21 years old are learning disabilities (50.2%) and mental retardation (26.5%).

More than half of special education students have specific learning disabilities.


orthopedic impairments (1.2%) 64,110
serious emotional disturbance (8.7%) 413,691
multiple disabilities (2.3%) 109,203
hearing impairments (1.3%) 83,178
*other health impairments (2.7%) 106,927
specific learning disabilities (52.1%) 2,438,147
mental retardation (11.6%) 552,703
speech or language impairments (21.1%) 1,007,575
* other health impairments
- visual impairments (0.5%) 24,873
- autism (0.4%) 18,893
- deaf-blindness 5,291
- traumatic brain injury 1,315

Source: Office of Special Education and Rehabilitative Services, 1995
Survey: OSEP state reported data, 1993-94 school year

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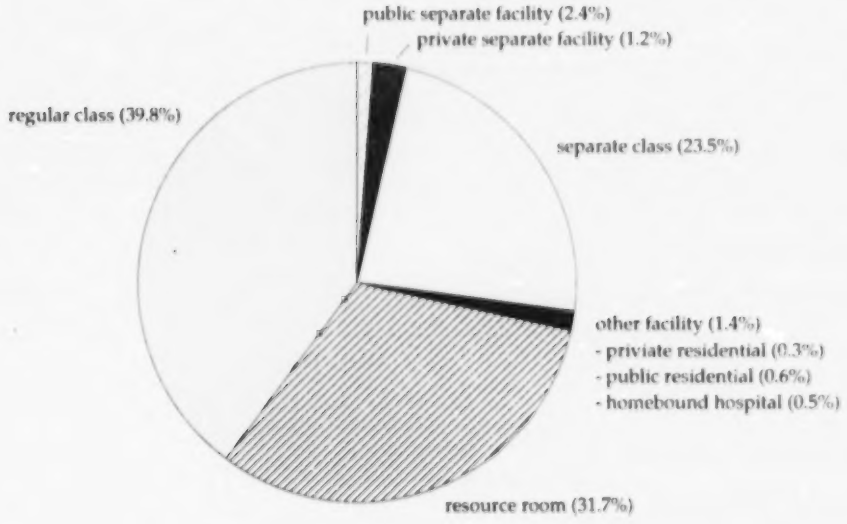
Where do children and youth receive special education?

The majority of students with disabilities age 6-21 receive **special education** and related services in settings with nonhandicapped peers. Nearly 40 percent receive special education in regular classes, while over 31 percent are served primarily in resource rooms. Just under 24 percent were served in separate classes in regular education buildings. The remaining 5 percent of the special education population were served in separate, residential, or homebound hospital facilities.

There is variation, however, across handicapping conditions. Students with speech impairments (82%), visual impairments (45%), other health impairments (40%), orthopedic impairments (35%) and learning disabilities (35%) are served primarily in regular classes. In contrast, 57 percent of students with mental retardation, 50 percent of those with autism, and 45 percent of those with multiple disabilities are in separate classes.

Four of ten special education students are served in regular classrooms.



Source: Office of Special Education and Rehabilitative Services, 1995
Survey: OSEP state reported data, 1992-93 school year

Section 5: Work and Disabilities

Attempting to count people who have a work disability is somewhat easier than trying to estimate the number of all people with disabilities. In work disability there is an easy-to-survey age group (the working ages—16-64 or 18-69 depending on the survey) and a specific activity in which to measure ability (work). The Bureau of the Census produces yearly data on work disability from its annual March Income Supplement to the Current Population Survey (CPS). It also asks work disability questions in the SIPP. Both ask questions about being prevented or limited in work, retiring or leaving a job because of health or disability. The surveys also ask questions about receipt of Medicare, SSI, or veteran's disability compensation. Another definition of work and disability is provided by the NHIS in its measurement of work limitation, which is also based on the respondent reporting being limited or prevented from work due to a chronic health condition.

Topic Questions:

How many people are considered to be work disabled?
How many work disabled persons are in the labor force?
How many work disabled persons are working full time?
How has the number of disabled people in the labor force changed over time?
How do the states differ in numbers of people with work disabilities?
How many persons have a severe work disability?
How many people are limited or unable to work because of a health condition?
What chronic health conditions are the most frequent causes of work limitation?
How do occupational injuries and illnesses affect work disability?
What are the earnings of someone with a work disability?
How many people with disabilities does the Vocational Rehabilitation system help?

How many people are considered to be work disabled?

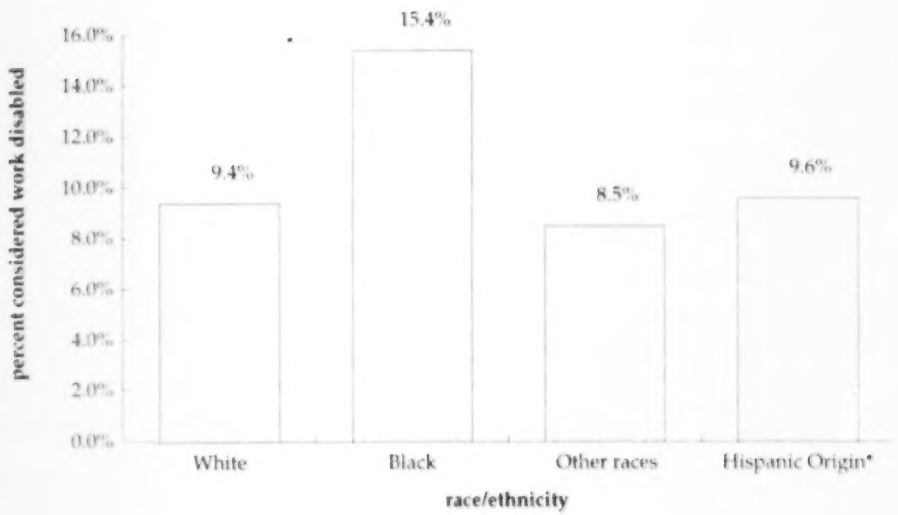
The number of noninstitutionalized people in the United States with a **work disability** is estimated to be 16.9 million, which represents 10.1 percent of the working age population (16 to 64 years old).

Higher percentages of blacks are work disabled than whites or Hispanics: 15.4 percent of blacks have a work disability (3.2 million people) compared to 9.6 percent for people of Hispanic origin (1.6 million), 9.4 percent of whites (13 million) and 8.5 percent of other races (700,000).

Work disability increases in frequency with age. At 16-24 years, 4.2 percent are work disabled; for 25-34 years, the proportion rises to 6.4 percent; for 35-44 years, 9.4 percent; from 45-54 years, 13.3 percent; and for 55-64 years, 22.9 percent are work disabled.

Technical Note: The Hispanic category can include people of any race.

Blacks report the highest rates of work disability.



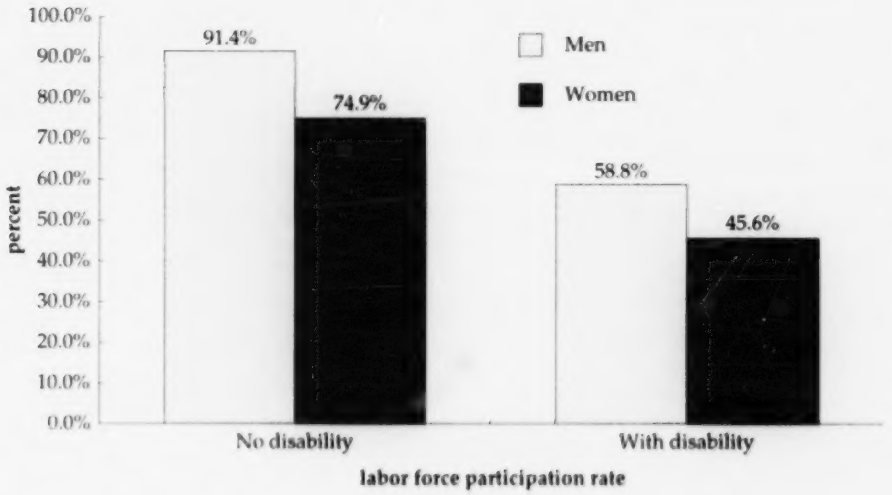
* Hispanic origin can be of any race

Source: LaPlante, Disability Abstract #11
Survey: CPS 1995

How many disabled persons are in the labor force?

The **labor force** is made up of people who are employed, those just laid off, and those who are actively looking for a job. It does not include people who are not working and not looking for a job. Of the 158.6 million between the ages of 18-64 in 1994, 124.6 million were in the labor force, a **labor force participation rate** of 78.6 percent. However, labor force participation rates are quite different for those with activity limitations (51.8%) compared to those without (83.0%). The difference is consistent when looking at men and women in the labor force (58.8 percent of limited men versus 91.4 percent of nonlimited men; 45.6 percent of limited women compared to 74.9 percent of nonlimited women).

A far lower percentage of both men and women with activity limitations are in the labor force.

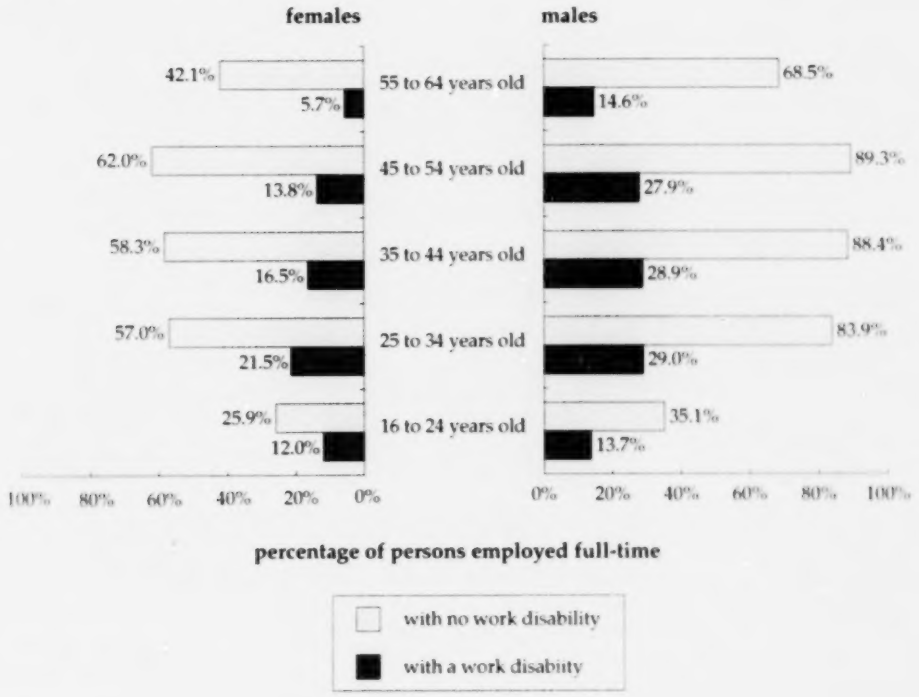


Source: Trupin, 1996
Survey: NHIS, 1994

How many work disabled persons are working full-time?

Another way to look at employment of people with a work disability is through **full-time employment** rates. Only 18.4 percent of the 16.9 million people with a **work disability** are employed full time. In comparison, 62.0 percent of the 150 million nonwork disabled people are employed full-time. The difference is true regardless of sex, race, or ethnicity.

People with a work disability are far less likely to work full time, year round than those with no work disability.



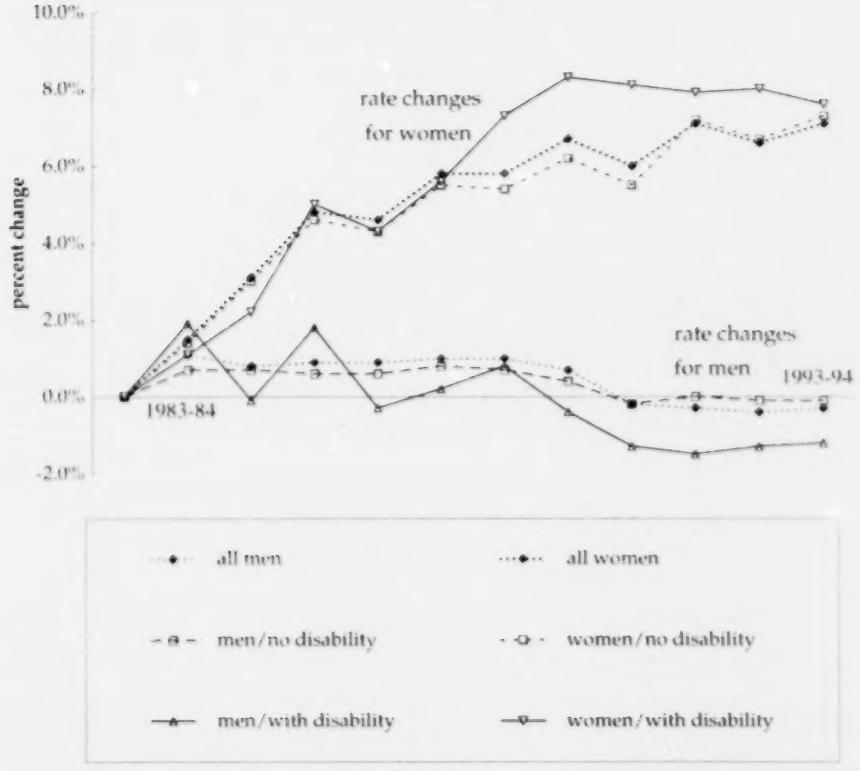
Source: McNeil, 1996
Survey: CPS, 1995

How has the number of disabled people in the labor force changed over time?

The long term trend is toward higher rates of participation in the labor force, for both those with a disability and those with no disability. In 1983, 79.1 percent of persons with no disability were part of the labor force; in 1994, that figure had risen to 83.0 percent. Of those with disabilities, 48.6 percent were part of the labor force in 1983; in 1994, the proportion had risen to 51.8 percent.

However, the majority of that change is due to the change in labor force participation of women. The rate of men with a disability has stayed fairly constant — 60 percent in 1983, 58.8 percent in 1994. The same rate for women, however, increased from 38 percent in 1983 to 45.6 percent in 1994.

The rate of participation in the labor force has increased for women with a disability but dropped for men with a disability.



Source: Trupin, 1996
Survey: NHIS 1983-1994

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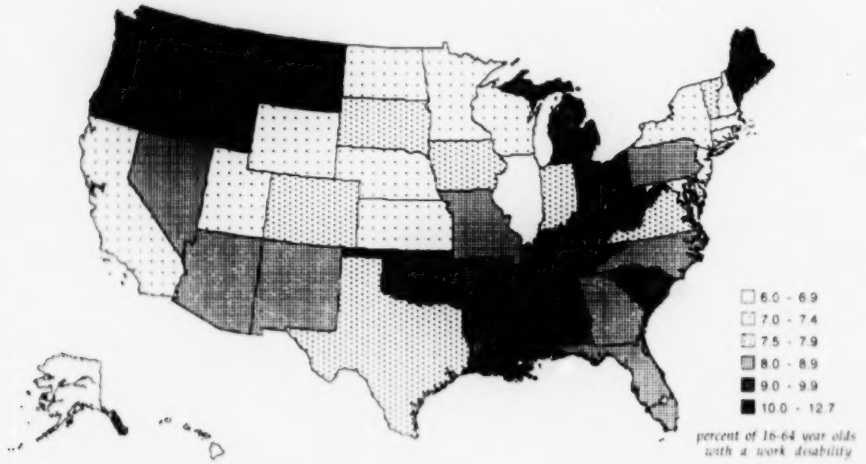
How do the states differ in numbers of people with work disabilities?

States where the proportion of persons age 16-64 with **work disabilities** is the highest are concentrated in the southern United States. The top 10 states (and District of Columbia) in percentage of disabled working age persons are: (1) West Virginia (12.6%); (2) Kentucky (11.4%); (3) Arkansas (11.1%); (4) Mississippi (11.0%); (5) Louisiana (10.3%); (6) Oklahoma (10.2%); (7) Maine (10.2%); (8) Oregon (10.0%); (9) Tennessee (9.7%); and (10) Montana and Alabama (9.7%). The states (and District of Columbia) with the lowest proportions of work disabilities are: (51) New Jersey (6.2%); (50) Connecticut (6.4%); (49) Hawaii (6.6%); (48) Alaska (6.6%); (47) Illinois (6.9%); (46) North Dakota (7.0%); (45) & (44) Nebraska and Maryland (7.1%); and (43) & (42) Kansas and Massachusetts (7.2%).

States with the largest increases in this rate from 1980 to 1990 are Alaska (up 22.0 percent from 5.4 percent in 1980 to 6.6 percent in 1990), Montana (up 19.3%), Wyoming (up 18.4%), Hawaii (up 11.4%) and Colorado (up 8.3%). States with the largest decreases in work disability from 1980 to 1990 are District of Columbia (down 15.0%), Florida (down 12.8%), Arkansas (down 12.2%), Maryland (down 11.9%) and Virginia (down 10.6%).

The highest rates of disability occur in the South.

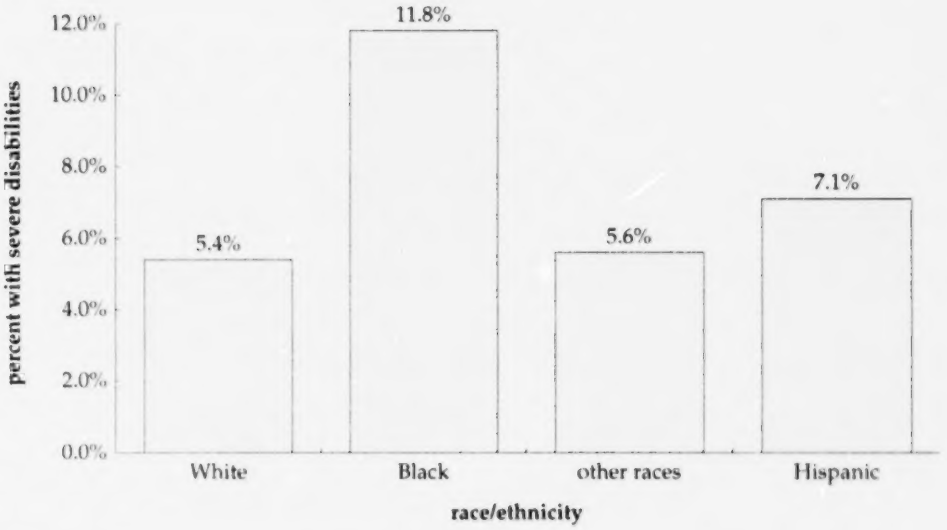


Source: LaPlante and Cyril, Disability Statistics Abstract #6, 1993
Survey: 1990 Census of Population and Housing

How many persons have a severe work disability?

There are an estimated 10.4 million people of working age (16-64) who have a **severe work disability**. Of this number, 5.1 million are males and 5.3 million are females. Seven and a half (7.5) million are whites (5.4 percent of all whites of working age), 2.5 million are blacks (11.8 percent of all blacks of working age), and the remaining 400,000 are of other races. There are 1.2 million persons of Hispanic origin with severe work disabilities who are 7.0 percent of the 17.1 million Hispanics of working age.

The proportion of working age blacks who have severe work disabilities is higher than for whites or Hispanics.



* Hispanic origin can be of any race

Source: McNeil, 1996
Survey: CPS, 1995

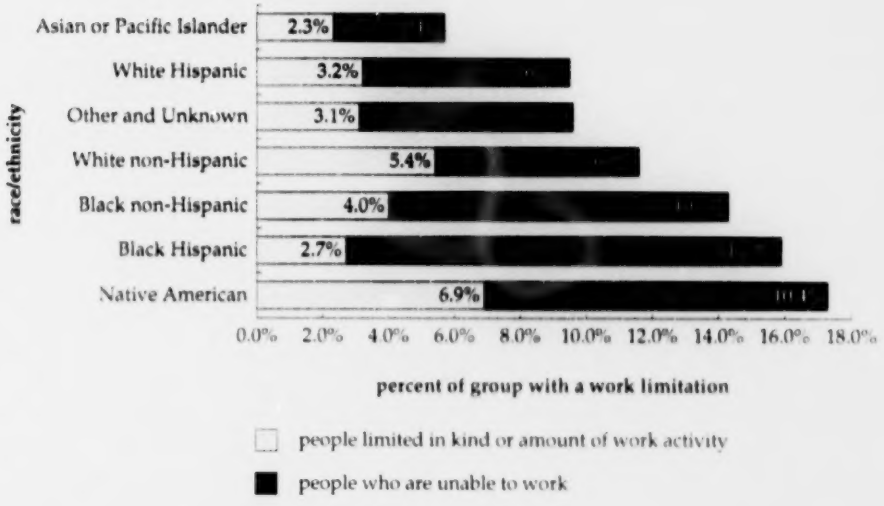
How many people are limited or unable to work because of a health condition?

For people between 18 and 69 years of age, work is considered to be the **major activity**. Measuring **work limitations** due to a **chronic health condition,** an estimated 10.9 million of these people are unable to work (6.6%), while another 8.1 million are limited in amount or kind of work activity (5.0%). For females, 6.6 percent are unable to work while an additional 4.8 percent are limited, compared to 6.7 percent of males unable to work and 5.1 percent who are limited.

As age increases, so does the impact of chronic conditions on ability to work. Only 1.9 percent of 18-24 year olds are unable to work, but the rate rises to 18.6 percent for 65-69 year olds. Similarly, 2.6 percent of 18-24 year olds are limited in amount or kind of work activity which rises to 10.0 percent for 65-69 year olds.

Technical Note: These data are from the National Health Interview Survey (NHIS), while the previous pages on work disability are from the March supplement of the Current Population Survey(CPS). As noted earlier, the two surveys have different definitions of work and disability (see glossary under **work limitation** and **work disability**).

Asians and Pacific Islanders report the fewest limitations in work activity.



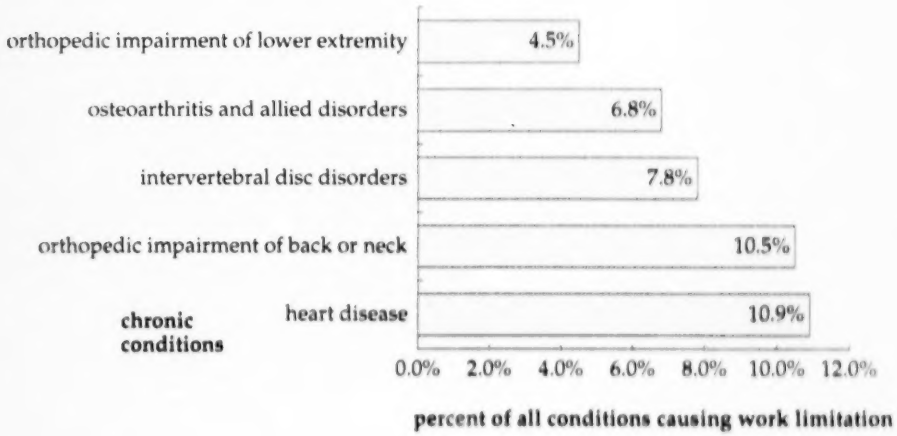
Source: LaPlante, 1996
Survey: NHIS 1992

What chronic health conditions are the most frequent causes of work limitation?

The **chronic health condition** most frequently reported to cause **work limitation** is heart disease at 2.1 million conditions (10.9 percent of all conditions cited as causing work limitation), followed by orthopedic impairment of the back or neck at 2.0 million (10.5%), intervertebral disk disorders at 1.5 million (7.8%), osteoarthritis and allied disorders at 1.3 million (6.8%), and orthopedic impairment of the lower extremities at 861,000 (4.5%).

Technical Note: Chronic condition groups are based on the International Classification of Diseases (ICD-9) codes as adapted by National Center for Health Statistics.

The top five chronic conditions causing work limitation.



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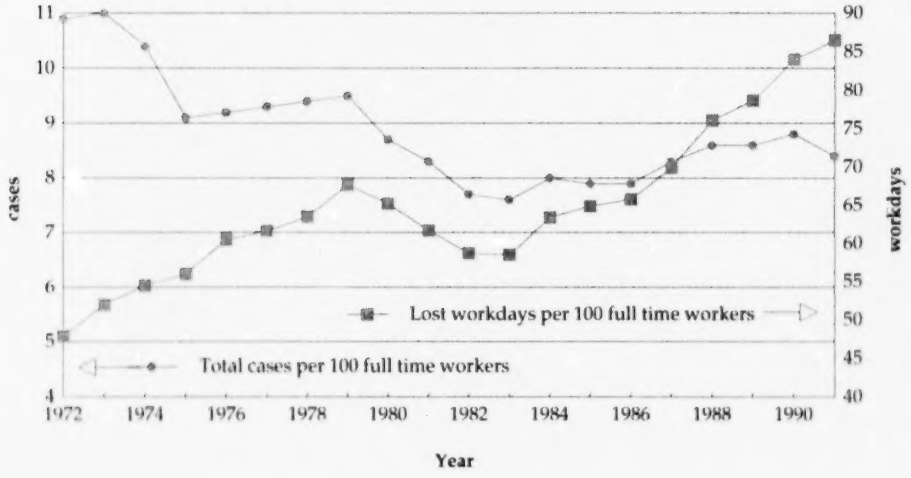
Source: LaPlante, 1996
Survey: NHIS 1992

How do occupational injuries and illnesses affect work disability?

Occupational injuries and illnesses also contribute to **work disability.** Over the past 20 years, the number of reported occupational injuries and illnesses has generally decreased, but the impact of these injuries and illnesses has greatly increased. In 1972, 10.9 cases of occupational injury or illness were recorded for every 100 full-time workers. By 1994, that incidence rate had dropped to 8.4 cases per 100 workers. In 1972, occupational injuries and illnesses caused 47.9 lost work days per 100 workers, whereas by 1991, the rate had increased to 86.5 lost workdays per 100 workers.

The effect of occupational illnesses and injuries has increased over the last 15 years.



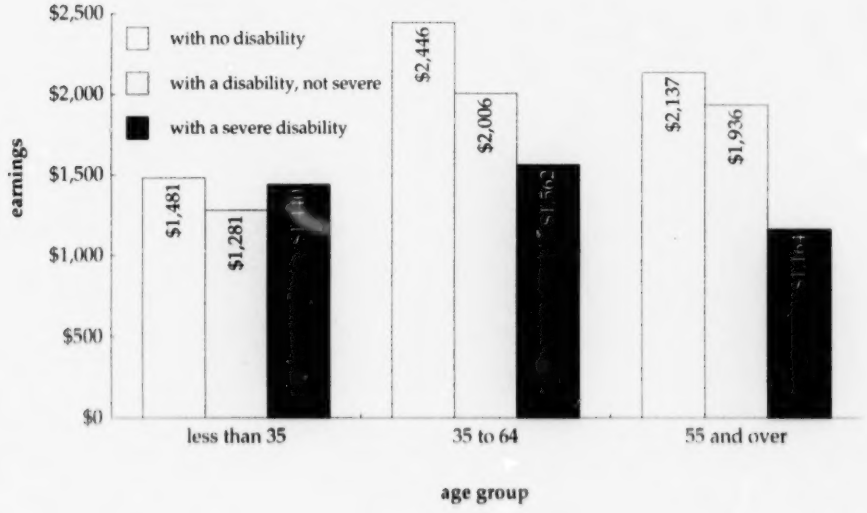
Source: Bureau of Labor Statistics, 1995
Survey: ASOII, 1972-1994

What are the earnings of someone with a disability?

The **mean monthly earnings** of persons of all ages with a disability which is not severe is $1,771. A person with a **severe disability** has monthly earnings of $1,422. By comparison, mean monthly earnings of people with no disability are $1,962.

Technical Note: Earnings are in 1991-92 dollars. The figures reported for age groups in the chart below should be interpreted cautiously, as high standard error rates were reported in several categories, particularly among men with severe disabilities.

The difference between the earnings of people with and without disabilities is slight for year round full-time workers.

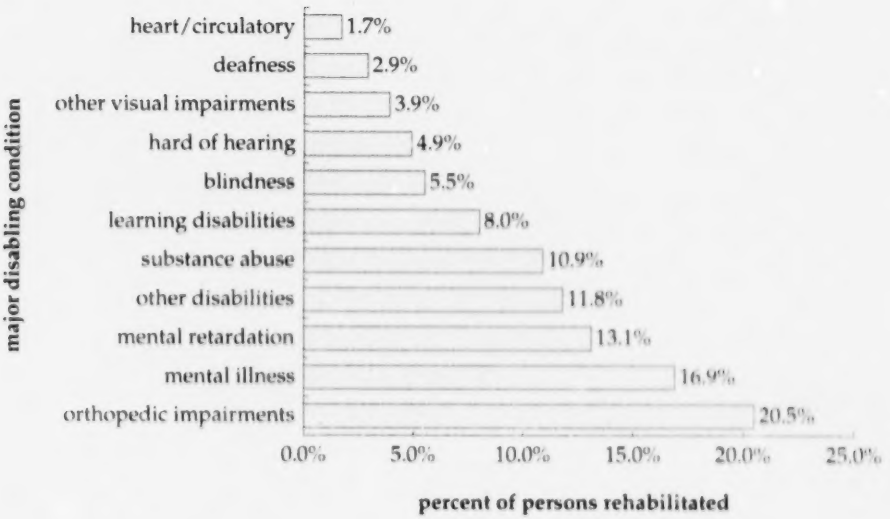


Source: McNeil, 1995
Survey: SIPP, 1992

How many people with disabilities does the Vocational Rehabilitation system help?

The state-federal **vocational rehabilitation** (VR) program provides services for individuals with disabilities, assisting them in obtaining employment. The program, authorized by the Rehabilitation Act of 1973, as amended, served 1,250,314 persons in FY 1995, including 940,177 with severe disabilities. That year, 209,509 individuals, including 159,138 with severe disabilities, were **rehabilitated** or successfully completed their VR services and found work in a variety of jobs. Types of conditions and impairments of people served by VR are shown below.

Vocational rehabilitation serves people with varying types of disabilities.



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Source: Rehabilitation Services Administration, 1996
Survey: Tabulations based on FY 1995 quarterly cumulative case load report, Form RSA-133.

Glossary

This list provides explanation of terms used in the book that may require clarification. Each of these terms is referenced on the page(s) upon which it is used. The definitions are taken from the survey or footnoted publication in order to convey the original authors' perspectives.

Activity limitation: In the NHIS, each person is classified into one of four categories: (a) unable to perform the major activity, (b) able to perform the major activity but limited in the kind or amount of this activity, (c) not limited in the major activity but limited in the kind or amount of other activities, and (d) not limited in any way. The NHIS classifies people as limited (groups a-c) or not limited (group d). Persons are not classified as limited in activity unless one or more chronic health conditions are reported as the cause of the activity limitation (see also **chronic health condition** and **major activity**).

ADL: The NHIS probes for information on persons who need the help of others in performing activities of daily living (ADL). The ADLs are bathing, dressing, eating, and getting around the home (see also **IADL**).

Assistive technology devices: As used in the Assistive Devices Supplement to the 1990 NHIS, the operational definition of assistive technology includes devices that enhance the ability of an individual with a disability to engage in major life activities, actions, and tasks. These devices assist people with deficits in physical, mental, or emotional functioning.

Chronic health condition: A condition that a respondent described as having persisted for three or more months is considered to be chronic, as is any condition that is on a list of conditions always classified as chronic no matter how long the person has had the condition (NHIS).

Earnings: The sum of wages and/or salary and net income from farm and nonfarm self-employment.

ESEA (SOP): Chapter 1 of the Elementary and Secondary Education Act - State Operated Programs, one of two programs that have provided states with financial assistance to educate school-age children and youth with disabilities (see also **IDEA**).

Family income: The income recorded by the NHIS is the total of all income received by members of the family in the 12 month period preceding the week of interview. Income from all sources is included. Sources can be wages, salaries, rents from property, pensions, government payments, and help from relatives.

Full-time employment: A full-time employed worker, according to the CPS, is one who worked primarily at full-time civilian jobs 50 weeks or more during the preceding calendar year.

Functional limitation: The SIPP asked respondents about their ability to perform the following specific sensory and physical activities: (1) seeing ordinary newspaper print (with glasses or contacts if normally used); (2) hearing normal conversation (using aid if normally used); (3) having speech understood; (4) lifting or carrying 10 pounds; (5) walking a quarter of a mile without resting; (6) climbing a flight of stairs without resting; (7) getting around outside; (8) getting around inside; or (9) getting into and out of bed. Difficulty in performing any of these activities is classified as a functional limitation in the SIPP.

Home accessibility features: The Assistive Devices Supplement to the 1990 National Health Interview Survey (NHIS) asked whether the respondent's home was equipped with any special features designed for disabled people including: ramps; extra-wide doors or passages; elevators or stairlifts (not counting public elevators); hand rails or grab bars (other than normal hand rails on stairs); raised toilets; levers, push bars, or special knobs on doors; lowered counters; slip-resistant floors; and other special features designed for disabled people. The presence of any of these features in the home is considered a "home accessibility feature."

IADL: The NHIS collected information on the respondent's need for assistance in performing instrumental activities of daily living (IADL). The IADls include: doing household chores, doing necessary business, shopping, and getting around for other purposes. People who need assistance in ADL were not asked about IADL (see also **ADL**).

IDEA: The Individuals with Disabilities Education Act, Part B State Program is one of two major federal programs that have provided states with financial assistance to educate school-age children and youth with disabilities (see also **ESEA**).

Labor force: As used by the Bureau of the Census in the March Supplement of the Current Population Survey (CPS), the labor force includes people employed as civilians, unemployed, or in the

Armed Forces during the survey week (see also Unemployment rate). People who are neither employed nor seeking employment are not included in the labor force (people engaged in housework, attending school, unable to work because of long-term physical or mental illness, persons who are retired or too old to work, seasonal workers in an off season, and voluntarily idle people).

Labor force participation rate: The number of people employed divided by the number of people in the labor force (used by the CPS and the SIPP).

Major activity: In the NHIS, persons are classified in terms of the major activity usually associated with their particular age group. The major activities for the age groups are: (a) ordinary play for children under 5 years of age, (b) attending school for those 5-17 years of age, (c) working or keeping house for persons 18-69 years of age, and (d) capacity for independent living (e.g., the ability to bathe, shop, eat, dress, and so forth, without needing the help of another person) for those 70 and over. People age 18-69 years who are classified as keeping house are also classified by their ability to work at a job or business (see **activity limitation**).

Mean annual income: The CPS measures the mean annual income by dividing the total income of individuals by the total number of individuals. Income includes wages or salary, interest, dividends, Social Security retirement, Supplemental Security Income, public assistance or welfare, veterans payments, unemployment, workers' compensation, private or public pensions, alimony, child support, regular contributions from persons not living in the household, and other periodic income.

Mean monthly earnings: In the SIPP, the mean monthly earnings are defined as the average monthly earnings during the four months prior to the interview. Earnings is defined as wages, salaries, and self-employment.

Medical expenditures: The NMES measures costs for medical care by totaling costs for hospital care, physician services, emergency room, dental services, vision aids, prescription drugs, medical equipment, and home care.

MSA: The Metropolitan Statistical Area has been defined by the U.S. Office of Management and Budget with help from the Federal Committee on Metropolitan Statistical Areas generally as a county or a group of counties containing at least one city having a population of 50,000 or more plus adjacent counties that are metropolitan in character and are economically and socially integrated with the central city.

Occupational illnesses and injuries: From the *Recordkeeping Guidelines for Occupational Injuries and Illnesses*, the definition used by the Annual Survey of Occupational Illnesses and Injuries (ASOII) for occupational injury is any injury such as a cut, fracture, or sprain, which results from a work accident or from exposure involving a single incident in the work environment. Occupational illness is any abnormal condition, acute or chronic illness, disease, or disorder (other than occupational injury) caused by exposure to environmental factors (inhalation, absorption, ingestion, or direct contact).

Poverty level: Poverty statistics presented in this report are based on a definition developed by the Social Security Administration in 1964 and revised by the Federal Interagency Committees in 1969 and 1980. The poverty index provides a range of income cutoffs adjusted by such factors as family size and number of children under 18 years old.

Rehabilitated: The successful placement of a client of a state Vocational Rehabilitation (VR) agency into competitive, sheltered, or self-employment, or homemaking and unpaid family work for a minimum of 90 days after the completion of all necessary rehabilitation services (see **Vocational Rehabilitation**).

Severe functional limitation: The Survey of Income and Program Participation (SIPP) regards a person who is unable to perform or needs the help of another person to perform one or more of a list of physical functional activities as having a severe functional limitation (see **Functional limitation** for list of activities).

Severe work disability: The Current Population Survey (CPS) classifies persons as having a severe work disability if (1) they did not work in the survey week because of a long-term physical or mental illness that prevents the performance of any kind of work, (2) they did not work at all in the previous year because of illness or disability, (3) they are under 65 years of age and covered by Medicare, and (4) they are under 65 years of age and a recipient of Supplemental Security Income (SSI) (see also **Work disability**).

Special education: Free appropriate public education and related services provided for children and youth with disabilities from birth through age 21. Assisted through funding by federal legislation IDEA --part B and Chapter 1 of ESEA (SOP) (see also **IDEA** and **ESEA**).

Unemployed: Unemployed people include those who, during the CPS survey week, had no employment but were available for work and (1) had engaged in a specific job seeking activity within the

past 4 weeks, (2) were waiting to be called back to a job from which they had been laid off, or (3) were waiting to report to a new wage or salary job within 30 days (see Labor force participation rate). The number of unemployed persons divided by the number of people in the labor force is the unemployment rate.

Vocational Rehabilitation: This refers to programs conducted by state Vocational Rehabilitation agencies operating under the Rehabilitation Act of 1973 to provide or arrange for a wide array of training, educational, medical, and other services individualized to the needs of persons with disabilities. The services are intended to help these persons acquire, reacquire, or maintain gainful employment. Most of the funding is provided by the federal government.

Work disability: Persons were classified as having a work disability by the Current Population Survey (CPS) if they met any of the following criteria: (1) had a health problem or disability which prevents them from working or which limits the kind or amount of work they can do, (2) ever retired or left a job for health reasons, (3) did not work in survey week because of a long-term physical or mental illness or disability which prevents the performance of any kind of work, (4) did not work at all in 1986 because of illness or disability, (5) under 65 years of age and covered by Medicare, (6) under 65 years of age and a recipient of SSI (Supplemental Security Income), or (7) received veteran's disability compensation (see also **Severe work disability**).

Work limitation: In the NHIS, a person can be described as having a work limitation if he or she describes a chronic health condition that prevents performance of work at all, allows only certain types of work to be performed, or prevents him or her from working regularly.

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Appendix

In this appendix, information on the sources and limitations of the data is presented. The major surveys covered in this publication are the Current Population Survey (CPS), the National Health Interview Survey (NHIS), the Survey of Income and Program Participation (SIPP), the Annual Survey of Occupational Injuries and Illnesses (ASOII), and the Census. These surveys provide the most current national numbers and estimates from respondent-based information. Estimates from surveys are within the past 7 years.

The following summaries will cover the surveys, their sampling formats, the respondent size, and definitions of terms used in the surveys concerning work disability and how it is measured. More details can be found in the original publications.

NHIS -- The National Health Interview Survey is a nationwide sample of households done by the National Center for Health Statistics (NCHS). It queries the civilian, noninstitutionalized population of the United States on its health. For disability purposes, it is concerned with activity limitations and chronic conditions.

Sampling -- A multistage probability design permitting a continuous sampling of the civilian noninstitutionalized population living in the United States. Each weekly sample is representative of the target population and is additive with other weekly samples. Sampling is done throughout the year thus preventing seasonal bias. The samples are grouped in four major geographic regions: Northeast, Midwest, South, and West. Surveys after 1985 use a redesign of the sampling which reduces sampling units by half and oversamples the black population.

Respondents -- The following samples were reached: 1993 -- 109,671 persons and in 1994 -- 116,179 persons. Response rate was approximately 95.6 percent in 1993 and 94.1 percent in 1994.

In 1990, the *Assistive Devices Supplement* was conducted. Of the nearly 120,000 persons interviewed in that year, 6,310 reported use of assistive devices, and 3,239 reported having home accessibility features. Sample cases were weighted to make the estimates of national statistics. Weights for each case adjust for several factors, including the nonresponse of some eligible households.

Definitions -- ***Chronic condition*** is one noticed for three months or more, or being on the NCHS list of chronic conditions.

Disability refers to any long- or short-term reduction of a person's activity as a result of an acute or chronic condition. ***Limitation of activity*** is a long-term reduction in a person's capacity to perform the average kind or amount of activities associated with his or her age group.

SIPP -- The Survey of Income and Program Participation is a longitudinal survey conducted by the Bureau of the Census. The data in this publication come from the third wave of the 1991 panel and the sixth wave of the 1990 panels of the SIPP. For the 1991-92 report, the topical modules included questions on disability status. The SIPP covers the noninstitutionalized population of residents living in the United States.

Sampling -- The same households are interviewed every four months. A cycle of four interviews covering the entire sample, using the same questionnaire, is called a wave. The 1990 panel contains an oversample of black headed households, Hispanic headed households and female headed family households with no spouse present and living with relatives.

Respondents -- The sample size for October 1991 to January 1992 was 34,000 households. Although no numbers are given on number of individuals interviewed (because it is a household survey), a rough estimate would be 85,000 (using an estimated 2.5 persons per household). The response rate ranged from 81.7 percent in October to 82.3 percent in November.

Definitions -- ***Functional limitations*** are defined from the questions asked about the difficulty in performing basic functional activities (seeing, hearing, having one's speech understood, walking, carrying or lifting 10 pounds, and walking up a flight of stairs). Persons age 15 and over were considered to have a ***Disability*** if they met the following criteria: (a) used a wheelchair; (b) had used a cane or similar aid for 6 months or longer; (c) had difficulty with a functional activity; (d) had difficulty with an ADL; (e) had difficulty with an IADL; or (f) was identified as having a developmental disability or a mental or emotional disability. A person also was considered to have a disability if: (g) the person were 16 years and over and had a condition that made it difficult to do housework; (h) the person were between 16 and 67 years of age and had a condition that limited the amount or kind of work the person could do at a job; (i) the person were under 21 years of age and his or her parents responded on the survey about receipt of developmental services, and limitations in usual activities, the ability to do regular schoolwork, or the ability to walk, run, or use stairs; and (j) the person were under age 65 and covered by Medicare or received SSI. ***Activities of daily living (ADLs)*** cover

getting around inside the home, getting into and out of bed or a chair, bathing, dressing, eating, and toileting. ***Instrumental activities of daily living (IADLs)*** cover going outside the home, keeping track of money or bills, preparing meals, doing light housework, and using the telephone.

CPS -- The Current Population Survey is a monthly survey done by the Bureau of the Census which deals mainly with labor force data for the civilian noninstitutional population. The part of the survey with which we are concerned for this publication is the March Income Supplement. Questions relating to labor force participation are asked of all members who are 14 or older in a household. In March, supplementary questions are asked about income thereby supplying the data for characteristics of noninstitutionalized persons with a work disability.

Sampling -- The CPS sample was selected from the 1970 Census files covering all 50 states and the District of Columbia. The sample is continuously updated to reflect new construction.

Respondents -- 60,500 households were eligible, but 2,500 were nonresponses (95.8 percent response rate). This translates into approximately 120,000 persons (assuming 2.5 people per household and lowering the estimate because the sample only includes ages 14 and above).

Definitions -- ***Work disability*** is the only disability measured by the CPS. People are classified as having a work disability if they

(1) have a health problem or disability which prevents them from working or limits the kind or amount of work they can do; or

(2) ever retired or left a job for health reasons; or

(3) did not work in the survey week because of long-term physical or mental illness or disability that prevents the performance of any kind of work; or

(4) did not work at all in previous year because of illness or disability; or

(5) are under 65 years of age and are covered by Medicare; or

(6) are under 65 years of age and a recipient of SSI (Supplemental Security Income); or

(7) received veteran's disability compensation.

ASOII -- The Annual Survey of Occupational Injuries and Illnesses collects data on work-related injuries, illnesses, and fatalities for the Bureau of Labor Statistics from a random sample of private establishments.

Sampling -- An independent sample is selected for each state. The sample design is based on the total recorded case incidence rate. The sample is stratified on the Standard Industrial

Classification (SIC) code and employment.

Respondents -- The survey covered 280,000 private establishments and represents about 83 million workers in the private sector.

ECA -- The National Institute of Mental Health (NIMH) Epidemiologic Catchment Area Survey is a multisite epidemiologic and health services research study that assesses mental disorder prevalence, incidence, and service use rates. The five sites for the study and the participating universities which carried it out were New Haven, CT (Yale); Baltimore, MD (Johns Hopkins); St.Louis, MO (Washington University); Durham, NC (Duke); and Los Angeles, CA (UCLA).

Sampling -- Population sizes in the five sites ranged from 270,000 to 420,000 with mixes of urban, rural, and suburban locations as well as ethnic and age compositions. One adult age 18 or over was surveyed in each of a probability sample of households in an area. Oversamples were done for elderly in New Haven and Durham, and blacks in St. Louis; and in Los Angeles, one area was predominantly Hispanics.

Respondents -- A total of 18,571 persons were interviewed, and a range from 3,004 to 5,034 completed interviews at each site.

Definitions -- The ECA diagnosed ***mental disorders*** according to the diagnostic criteria set forth in the Diagnostic and Statistical Manual of Mental Disorders -- Third Edition (DSM-III) of the American Psychiatric Association.

NMES -- The National Medical Expenditures Survey is a national probability sample of households done for the Agency for Health Care Policy and Research (AHCPR). It asked the civilian, noninstitutionalized population of the United States and medical providers about medical service use and expenditures, source of payments for health care, and health insurance coverage. It measured disability at two levels: activity limitations and activities of daily living (ADLs) limitations.

Sampling -- The NMES has a stratified multistage area probability sample design. The survey oversamples for poor and low income families, the elderly, persons with functional limitations, blacks, and Hispanics. Participants were interviewed five times between February 1987 and July 1988.

Respondents -- The screener interview occurred in 35,600 households. The resulting sample consists of approximately 35,000 persons in 14,000 households.

Definitions -- ***Activity limitation*** is defined by age group. For those age 18 and over -- if their health keeps them from working at

a job, doing work around the house, or going to school; and being unable to do certain types of work, housework, or schoolwork because of health. For people age 5-17 -- if the child attends or needs to attend special schools or classes because of an impairment or health problem; if the child is limited in school attendance or unable to attend school because of health; and if the child is limited in any way in any activities because of impairment or health. For children under age 5 -- if the child was unable to take part at all in the usual kind of play activities done by most children at this age; and if the child is limited in any way because of an impairment or health problem. ***Activities of daily living (ADLs)*** cover getting around inside the home, getting into and out of bed or a chair, bathing, dressing, eating, and toileting.

Acknowledgments

This **Chartbook on Disability, 1996** relies on the published data from several federal agencies and organizations. We are very thankful to all the people and agencies who have collected, maintained, and analyzed this data. The following people were very gracious and helpful by providing their most current information to us and reviewing our text and graphics:

Jack McNeil, Bureau of the Census
Gerry Hendershot, National Center for Health Statistics
Gary Collins, National Center for Health Statistics
Karen Bourdon, National Institute for Mental Health
Cille Kennedy, National Institute for Mental Health
Daryl Regier, National Institute for Mental Health
Dora Teimouri, Rehabilitation Services Administration
Laura Trupin, Research and Training Center on Disability Statistics
Mitchell LaPlante, Research and Training Center on Disability Statistics
K. Charles Lakin, University of Minnesota Research and Training Center on Community Living

Julia Bradsher identified statistical sources and contributed to the development of the chartbook. Sean Sweeney, NIDRR Project Officer, has provided statistical materials and advice. This Chartbook is one product of the InfoUse Center on "Improving Access to Disability Data," a grant supported by the National Institute on Disability and Rehabilitation Research. This is one of a series of products and activities intended to make information on disability and on disability statistics available to wider audiences.

☆U.S. GOVERNMENT PRINTING OFFICE: 1996 -- 415 - 195 / 60161

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WASHINGTON, D.C. 20202-2646

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